

FEMALE ORGASMIC FUNCTIONING: ITS RELATIONSHIP TO STRESS

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We hereby recommend that the thesis prepared under
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DEDICATION

This thesis is dedicated to all women
who have not reached their sexual
potential and wish to.

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CHAPTER I

INTRODUCTION

According to Ovid's Legend Zeus and Hera were arguing about which one, man or woman, derived more pleasure from sex. Since Tiresias had been both a man and a woman, they called upon him to settle the argument. To this question Tiresias quickly responded that women did (Barbach 1975, p. 29).

Yet, recent statistics reveal that approximately one half of the sexual encounters that end in orgasm for a male partner do not end in orgasm for a female partner (Barbach 1975, p. 18). This gives us something to wonder about. Why do so many women have difficulty in reaching the orgasm threshold?

Numerous publications and studies implicate a variety of factors which hamper orgasmic functioning in females. However, there may be other significant factors which act as inhibitors to female orgasmic functioning which have never been subjected to empirical testing. This author proposed a study to investigate one such possible inhibiting factor--stress.

The importance of stress became apparent to this author through the research and writings of Hans Selye. For the past forty years Dr. Selye's major subject of laboratory research has been the body's physiological response to stress. Selye's findings indicate that stress tends to reduce sexual drive (Selye 1961, p. 1010). If one respects his hypothesis that stress actually does contribute to diminished sexual drive, does this not raise the possibility that stress may also be significantly involved in a woman's capacity to be orgasmic?

This study investigated this possibility to ascertain whether stress was a significant factor affecting female orgasmic functioning.

Statement of Problem

The problem which was investigated was: Is there a significant relationship between the level of stress females are experiencing and their orgasmic functioning?

Statement of Purpose

The purpose of this study was to investigate whether there was a significant relationships between

the level of stress females are experiencing, due to changes which occur in daily living, and their orgasmic functioning.

Background and Significance

The theoretical framework from which the problem is derived was Hans Selye's Theory of Stress (Selye 1956). Selye's theory is based upon the concepts of stress and adaptation. Stress is defined as "a non-specific response of the body to a demand placed upon it" (Selye 1974, p. 14). Adaptation is the "non-specific demand to readjust to an agent or situation" (Selye 1974, p. 15). The consequence of ineffectual adaptive reactions, with which the body readjusts to stress, may entail a variety of maladies including sexual disorders (Selye 1961, p. 1010). According to Selye, people who experience intense and prolonged stress are more likely to experience sexual dysfunction. "Physical or mental fatigue, as well as any other type of stressful experience, diminishes sexual desire and may induce temporary impotence or frigidity" (Selye 1961, p. 1010). The mechanisms involved in this type of reaction are as follows:

During stress the sex glands shrink and become less active in proportion to the enlargement and increased activity of the adrenals. The sex glands are stimulated by gonadotrophic hormones of the pituitary, just as the adrenals are activated by adrenocorticotrophic hormone (ACTH) therefore, during stress, when the pituitary has to produce so much ACTH to maintain health it must cut down on the production of other hormones, including the sex hormones, which are less urgently needed. . .

The supply of sex hormones decreases as the stress hormone, ACTH, increases; therefore, it seems likely that stress may reduce sexual drive. In support of this hypothesis, McQuade and Aikman (1974, pp. 106-110) states that "in fact a rise in stress hormones actually causes a fall in sex hormones. . . which is why stress can reduce sexual drive. . . "

Stress can damage sexual responsivity and is frequently involved in the etiology of sexual dysfunctions (Selye 1961, p. 1010; McCary 1971, p. 33; Kaplan 1974, p. 75; Kaplan 1975, p. 13). Under the classification of sexual dysfunctions, anorgasmia is a major problem area. Recent statistics in sexual behavior indicate that a number of women fall into this category of anorgasmia (Hunt 1974, p. 212; Hite 1976, p. 230). In 1972 Hunt conducted a study of the sexual behavior of 1,044 females repeating the type of study Kinsey made on 5,940 females

in the 1940's (Hunt 1974, p. 16). The results of the 1972 study suggest that despite the so called sexual revolution, not much progress has been made in orgasmic responsivity among females. Both the Kinsey study and the 1972 study indicate that only about one half of the married women in the United States experience orgasm with any consistency in their sexual relationships 90 to 100 percent of the time while in the 938-49 study the figure was 45 percent (Kinsey 1953, p. 408). Perhaps this lack of progress by females in orgasmic responsivity may be attributed to the relative lack of attention to problems of female sexual adequacy. Until recently women's sexual needs were not considered to be of major importance. Cultural taboos prevented open discussion of their sexual problems. The prevailing social mores were incompatible with sex research. Consequently, the level of knowledge concerning sexual response and behavior in women was simply inadequate. The "authorities" (mostly males) views of female sexuality were inaccurate and many times based upon opinion rather than empirically tested fact (Williams 1976, pp. 224-225). However, through the emancipation of women and the emergence of sex as a discussable subject, orgasmic functioning in females has produced a veritable flood of sex manuals and similar

publications. Many of these implicate a variety of factors which may affect attainment of orgasm (Gebhard 1966, p. 88; Fisher 1972, pp. 192-210). Nevertheless, further research was necessary to discover other contributing factors which may affect orgasmic functioning.

Although research findings indicate that stress may influence sexual behavior (Selye 1961, p. 1010; McCary 1971, p. 44; Kaplan 1974, p. 75), there was a need for research which specifically studied the relationship of stress to orgasmic difficulty. It seemed likely that stress contributes to orgasmic dysfunctioning, however, research was necessary to move beyond speculation.

The attainment of orgasm in coitus is emerging as a powerful and purposeful goal of females (Gebhard 1966, p. 88). It has become, to no small degree, a symbol of women being accepted as humans of equal stature and with their own sexual needs. Therefore, studying any factor which diminishes orgasmic functioning in females could be considered important and worthy of investigation.

What implications does this have for nursing? Of all health care personnel, nurses are available in the greatest numbers, are the most readily accessible, and are usually perceived as most approachable. Thus, the nurse is in a unique position to counsel persons in the area of sexual functioning (Browning and Levi 1973, p. preface).

Hypothesis

To carry out the purpose of this study the following null hypothesis was formulated: There will be no statistical significant relationship between the level of stress a female is experiencing, measured in Life Change Units, and her orgasmic functioning in coitus.

Definition of Terms

In order for the reader to have the intended interpretation of terminology used, the following definitions are provided:

1. Orgasmic functioning is defined as attainment of orgasm
2. Female orgasm is defined as a climax of intense feeling followed by quietude and

relief as measured by self report

3. Stress is defined as the process of adaptation to the circumstances of everyday life as measured by the Schedule of Recent Events, developed by Holmes and Rahe
4. Life Change Units is defined as the weighted numerical value to forty-three different life events associated with varying amounts of disruption in the average person's life.

Limitations

Variables which were not controlled, but may have influenced the results were:

1. The sexual expertise of the partners involved.
2. Any other factor which may affect female orgasmic functioning that was not specifically controlled in the study, i.e., the phone rings, the room was too warm or too cold.
3. Not all female students of the school participated in the study.
4. The investigator was limited by time and funds.

5. The Hawthorne and Halo effects
6. The different feelings of orgasm as felt by various women
7. The self-reporting of an orgasmic feeling
8. The results were not generalized to a larger population
9. The age of the subjects
10. The arbitrary sex attitude score may be considered too lax or too stringent to other investigators.

The following variables were not controlled, but were described:

1. The length of the relationship
2. The marital status of the subject
3. Extraneous hormonal influence caused by oral contraceptives
4. The educational status of the subject
5. The socioeconomic status of the subject
6. The race of the subject
7. The religion of the subject
8. The subject's sex attitudes
9. The subject's frequency of coitus

Delimitations

The following variables have been identified and were controlled:

1. The subject must be a female.
2. The sexual partner of the subject must be a male.
3. The subject must have experienced orgasm through coitus with her sexual partner.
4. The type of orgasm must be achieved through male-female coitus.
5. The subject must rate her relationship with her sexual partner in the fair, good, very good, or excellent category.
6. The subject must rate her relationship with her father in the fair, good, very good, or excellent category.
7. The subject must be involved in only one sexual relationship.
8. The subject must not have any physical restrictions of her orgasmic capacity, i.e., advanced diabetes, clitoral adhesions.
9. The subject must not experience dyspareunia or vaginismus.

10. The subject must not have experienced any physical or emotional traumatic sexual incident, as perceived by the subject.
11. The subject must not receive androgens.
12. The subject must not be pregnant.

Assumptions

The following statements were accepted as universally true:

1. Although alike stressful experiences may affect each individual uniquely, their basic autonomic response is similar.
2. Life change requires adaptation which is stressful.
3. The questionnaires were answered honestly.
4. Women know when they attain orgasm.
5. Sex attitude test validity assesses sex attitudes.

Summary and Overview

Today's women are still plagued with problems in the area of their sexuality and particularly orgasmic functioning. Many "sex experts" have labeled various

factors as being detrimental to a female's sexual response and/or orgasmic capacity. This investigator proposed to study one such possible factor--stress. A growing number of researchers have demonstrated that stress diminishes sexual drive and may be involved in the etiology of female sexual dysfunctions.

The purpose of this paper was to determine if there was a significant relationship between the level of stress females experience and their orgasmic functioning.

The second chapter reviews literature concerning female sexual dysfunctioning, stress and life change, subsequent hormonal changes, and female orgasm. Studies indicate that stress caused by life change causes a variety of maladies affecting the body's biochemical processes which, in turn, may affect female sexuality and orgasmic functioning adversely.

The third chapter is concerned with the collection of data and their treatment. It describes the setting for the study and the sample population. The tools used for the data collection were described. Details of how the data were collected are given. Finally, the treatment of data is mentioned briefly. The method by which data were analyzed is described in chapter four.

The final chapter of the thesis, chapter five, reviews the entire study. Conclusions and implications which may be derived from the study are offered, and suggestions for further research are given.

CHAPTER II

REVIEW OF LITERATURE

Orgasmic difficulties are probably the most prevalent sexual complaint of women. Through the emancipation of women and the emergence of sex as a discussable subject, female orgasm has reached a point of intense concern. The emphasis on female orgasm has produced a veritable flood of publications which link numerous factors as adversely affecting a female's orgasmic capacity. This chapter will demonstrate the possible linkage between one such possible adverse factor of female orgasmic functioning--stress. This chapter will review literature in the following four sub-chapters: (1) Female sexual dysfunctioning; (2) Stress and life change; (3) Hormonal changes; and (4) Female orgasm.

Female Sexual Dysfunctioning

It is well accepted by most knowledgeable persons that female sexual dysfunctions may be categorized as four separate and distinct syndromes. They are:

1. General sexual dysfunctions which are characterized by an inhibition of the general arousal aspect of sexual response
2. Orgasmic dysfunction which is characterized by episodes of relatively continuous inability to reach orgasm in situations judged to be appropriately stimulating
3. Vaginismus which is characterized by spasm of the prevaginal musculature rendering penetration difficult or virtually impossible
4. Dyspareunia which is characterized by vaginal or pelvic pain associated with penetration and coitus
(Masters and Johnson 1970, pp. 214-294; Kaplan 1974, pp. 341-343; Meyer 1976, p. 11).

Female sexual functioning is vulnerable to disruption from physiological, psychological, and socio-cultural factors (Masters and Johnson 1966, p. 127; Katchadourian and Lunde 1972, p. 309). According to Masters and Johnson who examine all their patients medically and gynecologically before starting treatment, only a small percentage of female sexual dysfunctions

are due to physical disease. In the great majority of cases the dysfunction is psychological in origin (Masters and Johnson 1970, p. 12). The female sexual response seems relatively invulnerable to physical factors. However, the female sexual response is contingent upon the following physical factors as described by Kaplan (1974, pp. 345-346):

. . . anatomically intact reproductive organs, an adequate vascular supply to these organs, a functional nervous regulation of the genitals, and a normal hormonal environment. . . very few diseases specifically affect the sexual functioning of women. . . however, inhibition of the sexual response can be attributed to malignancies which destroy the genital organs; endocrine diseases, such as pituitary dysfunction, which affect the testosterone level; diseases which impair muscle tone and contractility; and diseases that destroy the neurological apparatus which subserves the sexual response, such as multiple sclerosis and advanced diabetes. . . two specific physical factors have been implicated. . . clitoral adhesions, and inadequate pubococcygeal muscle strength and contractions.

The psychological causes of female sexual inadequacy stated in the literature are complex and multiple. Many of the theories and widely accepted ideas about the determinants of female sexual inadequacy are related to the quality of relationship a female experienced with her father (Fisher 1973, p. 203), marital happiness (Gebhard 1966, p. 270), traumatic sexual

experience (Kaplan 1974, p. 176), anxiety and depression (Katchadourian and Lunde 1972, p. 310), fear of performance (Masters and Johnson 1970, p. 12), poor communications (Kaplan 1974, p. 349), fear of loss of love object (Fisher 1973, p. 195), anger, fear, and distress (Singer 1969, p. 37).

The psychological causes of female sexual malfunctioning are innumerable. However, the dynamics of the psychological causes of female sexual inadequacy gain clarity when they are considered in terms of the situational, intrapsychic, and interpersonal factors. Situational factors are characterized by the immediate obstacles to sexual adequacy (Kaplan 1974, p. 353). Intrapsychic causes are characterized by clinical symptoms of neurotic sexual conflict (Kaplan 1974, p. 353). When the sexual problem seems to be part of a larger conflict between two specific people, it is labeled interpersonal (Katchadourian and Lunde 1972, p. 310).

It would be foolish to deny the impact of the sociocultural factors upon female sexuality, particularly with regards to the prevalent sexual mores.

To begin with, girls grow up dominated by a double standard and are generally subjected to considerably more sexual repression. . . . From a very early age girls are taught to be aware of sexual advances from men as something not only dirty and sinful but dangerous. Apart from such indoctrination, sex is often never discussed at home, so that both explicitly and implicitly the subject of sex becomes negatively conditioned as a taboo area, surrounded by ignorance, fear, and guilt. These patterns are observable with particular frequency in families dominated by orthodox religious convictions (Marmor 1976, p. 339).

In this century a great deal has been made of the damaging effects of the demands, anxieties, and the hectic pace of living upon female sexual functioning (Katchadourian and Lunde 1972, p. 313).

In reviewing the literature related to these three factors, physiological, psychological, and socio-cultural, each factor seemed to contain a common denominator. Each factor is stressful and would require an individual to adapt. Indeed, research findings indicate that stress influences sexual drive adversely (Selye 1961, p. 1010; McCary 1971, p. 44; Kaplan 1974, p. 75; Kaplan 1975, p. 13). Kaplan writes:

The mechanism by which. . . stress impairs sexuality is not clearly understood. Some experts believe the phenomenon to be purely psychogenic. The person in a crisis is after all intensely engaged in mastering his difficulties and it is adaptive for him to concentrate all his energies

on resolving these, to the exclusion of all diversions. On the other hand, it is also possible that the profound physiologic and endocrine changes which accompany severe . . . stress . . . contribute to a loss of sexual motivation by affecting the central nervous system and the neurotransmitters and also by lowering the available androgen supply. . . . a person's stress influences his hypothalamus which responds by signaling the hypophysis to decrease its output of FSH and LH. These substances stimulate the gonads to secrete their sex hormones. . . . Presumably this in turn causes a slowing of the sex centers in the brain, which is reflected in lowered libido and a diminished sexual response. Another possible mechanism by which stress may adversely affect sexuality is that the increased plasma-cortisone levels which accompany stress . . . may also diminish sexual interest by virtue of the antiandrogen effects of the cortical steroids (Kaplan 1974, pp. 75-76).

Stress and Life Change

Stress and the concomitant problems that accompany it can be viewed as an integral part of life in the twentieth century. Nowhere may an individual find relief from this phenomenon for just as this century is marked by constant change stress is seen as a closely related, although not always clearly understood, problem (Toffler 1970; Holmes and Masuda 1973; McQuade and Aikman 1974; Selye 1974).

Stress as defined by Selye (1974, p. 17),
 " is the non-specific response of the body to any

demand upon it." It may be seen as either specific or non-specific in nature and is associated with any event or activity. Thus, anything which occurs within the life of the individual can be associated with a specific stressor demand. A stressor is simply, ". . . that which produces stress" (Selye 1956, p. 64). This factor remains true regardless of whether the stimuli are perceived as extremely pleasant or unpleasant.

Stress then becomes not only a constant but an everyday occurrence in daily life. It is a "biological necessity" (Selye 1974, p. 310). Selye (1956, p. 64) approached man's pattern of reaction to stress as the difficulty that was initially experienced in response to a situation, the process whereby the individual attempts to adapt and the last stage in which he is unable to adapt any longer. This reaction pattern to stress is known as the "General Adaptation Syndrome (GAS)." Selye noted these three stages of the GAS: (1) the alarm stage; (2) the resistance stage; and (3) the exhaustion stage. Thus, "stress is a state manifested by a syndrome" which is evoked by man's attempt to adapt or readjust to an agent or situation (Selye 1974, p. 15). Dohrenwend and Dohrenwend (1970)

concur with Selye's concepts and syndrome of stress. They view stress situations as containing the following four elements: 1) the stressor, 2) the mediating factor, 3) the resulting stress, and 4) the adaptation syndrome.

Other factors are seen as influencing when and to what extent an individual reacts to stress. The reactivity of the target plays an important role and can be modified by either internal or external factors. "The effects of stress may be long lasting, even after the stressor has ceased to act" (Selye 1974, p. 73). Arnold (1971) points out that individuals differ in their response to stress factors, and that appraisal and interpretation play an important role in stress.

A vast amount of research has been done within the area of stress and life change, attempting to determine the relationship between the events of daily living and the frequently negative psychological and physiological factors which accompany them (Gundersmand and Rahe 1974). The process and theory of life change represents an outgrowth of the emphasis upon change as the most important factor in producing stress in the individual (Hernard 1975).

Toffler (1970, p. 326) points out that the rapid pace in which society is changing has made adaptation increasingly difficult. He states, ". . . there are discernable limits to the amount of change that the human organism can absorb." He emphasizes that when man reaches his limit of tolerance for any more change, he runs the risk of developing "future shock." Research of Holmes and Masuda (1973) as reflected in the writings of Toffler, Selye, and others has pointed to the fact that any major change occurring within the life of the individual requires some form of adjustment which is stressful. Stress and life change can then be related to the onset of physical and/or psychological disease syndromes.

Investigation by Holmes and Rahe (1967) concentrated on attempting to study the quality of life events as they related to the onset of disease in over 5,000 patients. The forty-three life events which evolved from this self-report inventory formed the basis for the original "Schedule of Recent Events (SRE)." Each life event received a specific weight represented in life change units (LCU) with a LCU range from 11 to 100. To establish the quantity of life change units

required one to be placed in either high, medium, or low categories of susceptibility to disease. Holmes and Masuda (1973) compared the reported health changes of 88 physicians over a ten-year period with their reported life events clusters. Results of this study revealed 150-199 LCU placed an individual in a class indicating mild life stress; 200-299 LCU indicating moderate life stress, and 300 or more LCU indicating major life stress. Thus, an individual's yearly total of life change can be represented by the total LCU for that year. The higher a person's yearly LCU total, the greater the risk for major health changes the following year.

Studies have found that the white American woman is facing a rapidly increasing amount of stress-induced disease. This is appearing at a time when women are changing from a passive to a more competitive role in American society (Friedman and Rosen 1974; Prock 1975). Studies by Wolff (1968) indicate that life change is definitely linked to increased disease. Studies similar to Wolff's done by Kagen (1970) concur with Wolff's findings--increased life change is indicative of increased disease. Selye's research revealed that sexual disorders are among the variety of maladies

induced by stress. "The adaptative reactions which the body combats stress may entail severe derangement in sexual life" (Selye 1961, p. 1010).

Hormonal Change

Selye describes "diseases of adaptation" as those diseases which are produced by any type of maladjustment to stress. He states that "many biochemical mechanisms may become deranged as a consequence of stressful experiences and thus maladies and diseases result" (Selye 1961, p. 1011). Selye specifically relates the following diseases to be an aftermath of stress and subsequent hormonal imbalance: excessive weight loss or weight gain, diabetes, hyperthyroidism, Addison's disease, and sexual derangements (Selye 1956, pp. 176-189). Frankenhaeuser (1970) measured ephinephrine and norephinephrine blood levels of subjects experiencing modern day stresses simulated in laboratory experiments. The study revealed that during periods of uncertainty and expectation, the ephinephrine level was increased three times greater than it was in the same subject during relaxation. The norephinephrine increase was minimal.

Studies reported by Oken (1965) showed that adrenaline levels were increased in situations that were psychologically stressful. A Leningrad study of 200 patients who were suffering from the results of psychic trauma showed somatic symptoms which included vomiting, chest pain, heart palpitation, and insomnia. A study of the relationship between the various situation-dependent emotions in these patients and their adrenaline and noradrenaline blood levels revealed that fear increased the adrenaline blood level. Anger, irritation, and anxiety increased both the adrenaline and noradrenaline blood levels (Myager 1971, pp. 258-260). Froberg et al. (1971) found that blood catecholamine levels increased during periods of stress. Studies have also shown that blood cortisol levels increase in response to stress (Raub 1968; Rahe et al. 1974).

The relationship between hormones and female sexuality is just beginning to be clarified. Benedek and Rubenstein (1942) first presented data in which estrogen levels derived from vaginal smears seems to predict sex drive and sexual imagery in women who were in psychoanalytic therapy. In 1947 Conner (p. 98) writes,

. . . to what extent the sex urge in the female is controlled directly by the estrogenic hormone is a question too complex for analysis at present. we may be sure, however, that the hormones have an important part in the matter, directly or indirectly. . .

In 1956 Selye's studies revealed stress and subsequent hormonal change causes a syndrome of sexual maladies in females. The monthly cycles become irregular or stop altogether, and during lactation, milk secretion may become insufficient for the baby. Later, in 1961, Selye postulated the relationship between stress and diminished sexual drive and possible temporary frigidity in women. McQuade and Aikman (1974, pp. 106-107) supported Selye's hypothesis, "in fact a rise in the stress hormones actually causes a fall in sex hormones. . . which is why stress can reduce sexual drive." Masters and Johnson (1966, p. 314) report that,

. . . as has been seen, endocrine starvation has an indirect influence upon. . . female sexual capacity or performance. Steroid starvation also has an indirect influence upon female sexual drive. Estrogenic compounds frequently do improve sex drive.

They add, "The influence of the hormonal cycle and the depressant effect of excessive physical or mental fatigue always must be considered in relation to the

effectiveness of sexual performance."

Kaplan (1974, p. 54) concluded from her clinical experience that,

. . . women differ in their libidinal responses to hormonal fluctuations. (The menstrual cycle.) This is not surprising because female erotic cravings are multi-determined. Some women seem to experience no special libidinal changes correlated with the menstrual cycle. However, many report feeling cyclic changes not only in sexual desire but in irritability and mood. Although there is agreement that many females experience consistent fluctuations in female sexual responsiveness during their menstrual cycles, there is controversy regarding where in the cycle the highs and lows of female libido are to be found.

McCauley and Ehrhardt (1976, p. 472) findings from their studies on hormonal states in women concur with Kaplan's. Their findings revealed that hormones do play a role in the expression of female sexual response. However, their findings were inconsistent between the various groups of women included in the sample population. They concluded,

It may well be that hormones interact with other situational variables in such a way as to sometimes enhance sexual behavior, while at other times, or for other women, the hormonal-environmental interaction may lead to a suppression of sexual responsivity.

Female Orgasm

The understanding of orgasmic dysfunction depends on a clear conceptualization of the female orgasm. Masters and Johnson (1966, p. 127) define female orgasm physiologically and psychologically. "Physiologically orgasm is a brief episode of physical release from the vasocongestive and myotonic increment developed in response to sexual stimuli." The physiologic factors of female orgasm are reflected by myotonic tension throughout the body; rapid detumescence of the vasocongested breast areolae, resulting in a constricted, corrugated appearance; the sex flush, which is a maculopapular rash distributed superficially over the body surfaces; and from a cardio-respiratory point of view, hyperventilation is noted, with respiratory rates occasionally over forty per minute. Tachycardia is experienced, with cardiac rates running from 110 to beyond 180 beats per minute and hypertension is seen with the systolic pressures elevated by 30-40mm and diastolic pressures by 20-40mmHg (Masters and Johnson 1966, pp. 128-130).

Psychologically female orgasm is the "subjective perception of a peak of physical reaction to sexual stimuli" (Masters and Johnson 1966, p. 127). Masters

and Johnson (1966, pp. 135-136) offer a composite of subjective response to orgasmic incidence as compiled from reports of 487 women. The consensus drawn from the multiple descriptions established three distinct stages of a woman's subjective progression through orgasm. During the first stage the women experienced the sensation of intense clitoral-pelvic awareness occurring concomitantly with a sense of bearing down or expelling. During the second stage a sensation of "suffusion of warmth" specifically pervading the pelvic area first and then spreading progressively throughout the body was reported. Finally, within the third stage a feeling of involuntary contraction with a specific focus in the vagina or lower pelvis was mentioned consistently. Frequently, the sensation was described as that of "pelvic throbbing."

It has recurrently puzzled those who have tried to understand female sexuality that so many females have difficulty in attaining orgasm. As a group, women seem to have a significant problem in this area (Fisher 1972, p. 22). Kaplan (1974, p. 374) points out "that orgasmic dysfunction is the most prevalent sexual complaint of women." Hite (1976, p. 229)

found that only approximately 30 percent of the women in the study could orgasm regularly from intercourse. Hunt conducted a study in 1972 which found that only 53 percent (Hunt 1974, p. 212) of the women (married an average of fifteen years) achieved orgasm with intercourse 90 to 100 percent of the time. In the 1938-49 study conducted by Kinsey, the figure was 45 percent (Kinsey 1953, p. 408). The 1972 report also shows that only 30 percent of the single women interviewed were consistently orgasmic with a partner; and that approximately 15 percent of the women never or almost never experience orgasm (Hunt 1974, p. 194). These statistics are particularly perplexing in view of the evidence mustered by Masters and Johnson (1970, p. 291) that the female's orgasmic capacity "infinitely surpasses that of man."

Orgasm is the natural and normal release of sexual tension in women. This build-up of tension requires a release. A continual, repeated lack of sexual release can cause irritability, frustration, fatigue, or even headaches (Barbach 1975, p. 18). Stress resulting from sexual or other problems can create body imbalances which may result in vaginal

infections and other physical symptoms and gynecological problems (Jorgensen 1973, p. 609; Kaplan 1974, p. 32). In addition, sex has been, and continues to be, a serious point of contention in many relationships. A woman's failure to respond orgasmically within the sexual relationship frequently becomes a source of conflict for the couple (Kaplan 1974, p. 32).

Investigators have labeled numerous factors as detriments to a female's orgasmic functioning. If one respects the information presented and the train of logic pursued throughout this chapter, it becomes difficult to evade the conclusion that a woman's orgasmic potential is probably affected by stress. Only a handful of studies have been reported within this area. Stress has been definitely linked to diminished female sexual drive (Selye 1961, p. 1010; McCary 1971, p. 44; Kaplan 1973, p. 75; McQuade and Aikman 1974, pp. 106-110; Kaplan 1975, p. 13). However, additional research is necessary within the area of stress and female orgasmic functioning.

In 1961 Selye (p. 1010) reported that, "The adaptive reactions with which the body combats stress may entail severe derangement in sexual life. . . and may induce temporary. . . frigidity." Cooper (1969)

examined personality factors in women who were frigid and found that high anxiety was demonstrated in such patients. Additional research was conducted in 1969 by Ludwig et al. They investigated seven case studies to evaluate the influence of stress in gynecologic disorders; one such disorder was frigidity. Their findings revealed that under high levels of stress, abnormally high levels of steroid excretion were noted in the patient's urine. When stress was lowered (through psychoanalytic treatment), the steroid secretion returned to normal, and the disorder dissipated. Waxenberg (1969, pp. 12-13) also notes that changes in hormones, particularly androgens, affected the female orgasmic potential adversely.

. . . the conclusions that the androgenic hormones of adrenal origin play a critical part in maintaining the pattern of sexual excitability and orgasmic response in the human female are strongly consistent with the research findings of Masters and Johnson and the psychophysiological correlations of Sherfey.

Fisher (1973, p. 249) conducted an extensive study in the area of female orgasm. He found that orgasm consistency was negatively and significantly correlated with the Murray Anxiety Scale in a portion of his sample population. In an attempt to investigate vaginal vs.

clitoral orgasm, Fisher (1973, p. 411) found the following:

. . . the more vaginally oriented woman is inclined to "dampen" excitement and to minimize the potentially arousing aspects of what she perceives. When constructing imaginative stories she minimizes and mutes tension or crisis. Problems within her stories are resolved in a 'they lived happily ever after' fashion. While casting about for an explanation as to why the vaginally oriented woman is inclined to mute experience, a logical possibility presented itself in terms of the findings that she is more anxious than the clitorally oriented. As defined by several different measures, amount of anxiety was observed to be positively linked with strength of vaginal preference. This suggested that the muting of both body and non-body stimuli by the vaginally oriented woman might be a defense against anxiety. They might learn to dampen the intensity of what they experience in an attempt to evade the chronic unpleasant sensations associated with anxiety.

Marmor (1976) has suggested that female orgasmic dysfunction can be a secondary consequence of any severe debilitating disease, general ill health, and extreme fatigue. All which are possible consequences of high levels of stress. Swieczkowski and Walker (1978) conducted a study to determine the sexual behavior correlates of female orgasm and marital happiness. An off-shoot of their study revealed that a female's orgasmic ability was found to be reduced during times of crisis.

Summary

Literature was reviewed in the areas of female sexual dysfunctions, stress and life change, hormonal change, and female orgasm. Publications and studies were reported which supported the positions that a number of females are plagued with sexual difficulties which are physically, psychologically, or socioculturally caused. All these three factors may be stress affected. Stress and life change are concomitant problems that are closely related with a variety of maladies, including sexual dysfunctions. An aftermath of stress and disease may include a variety of hormonal imbalances which may have a direct or indirect effect on female sexual dysfunctioning. Finally, orgasmic functioning may be adversely affected by stress and stress-induced hormonal imbalances.

CHAPTER III

PROCEDURE FOR THE COLLECTION OF DATA

The study was one of a descriptive nature. The purpose was to measure stress levels and female orgasmic functioning; and, after analyzing the collected data, to ascertain what relationship existed between stress levels and female orgasmic functioning in this sample population.

Setting

The setting for this research was a small campus of a major university located in a central Texas city with a population of approximately 35,000. The campus is located in a building consisting of eight rooms, three of which are classrooms. The materials for the study were located in the front room of the school which is frequented by the students. The enrollment is approximately 150 students. It was anticipated that approximately 100 students would volunteer to answer the questionnaires.

Population

The population sample consisted of a convenience sampling of eighteen female students of the school who consented to participate in the study and returned the forms within the two-week span. The following criteria were used for selection:

1. The person was a female
2. The person had experienced orgasm in coitus with her sexual partner
3. The person's sexual partner was a male
4. The person rated her relationship with her father in the fair, good, very good, or excellent category
5. The person rated her relationship with her sexual partner in the fair, good, very good, or excellent category
6. The person had not experienced any traumatic physical or emotional sexual encounters
7. The person was involved in only one sexual relationship
8. The person did not have any physical restrictions interfering with her orgasmic capacity

9. The person did not receive androgens
10. The person was not pregnant
11. The person did not experience dyspareunia
or vaginismus

The general population of the school is approximately composed of 98 percent female, of which 96 percent are white, 2 percent are black, and 2 percent are Mexican-American. The average age is approximately thirty, with 97 percent being married. It is estimated that 97 percent are employed either in a full-time or part-time capacity.

Tools

The Schedule of Recent Events (SRE), developed by Holmes and Rahe, was the tool used to measure the stress levels of the sample population (Appendix A). The SRE was designed to quantitatively assess the amount of stress that is being experienced by an individual, based upon the quality and quantity of life events that he has experienced during the last calendar year. The SRE gives a weighted numerical value to forty-three different life changes. Life events were seen as neither

positive nor negative, but instead as having the potential to elicit some type of adaptive behavior. The major emphasis is placed in change, with no specific stress placed on such factors as "psychological meaning, emotion, or social desirability" (Holmes and Masuda 1973, p. 165).

Standardization was accomplished with 394 subjects who were asked to examine a list of life events, scaling them in relation to an arbitrary score that had been attached to the event of marriage. Scaling was aided by including the following two questions in the instructions (Holmes and Rahe 1967, p. 213):

1. Is this event indicative of more or less readjustment than marriage?
2. Would the readjustment take longer or shorter to accomplish?

Upon completion of the scaling the mean score for each score was divided by ten, thus providing a weighted value of readjustment for each life event. These values, referred to in life change units (LCU), in turn represented each event and ranged from 11 to 100 over the forty-three life events in the scale. Studies relating the order and magnitude of mean scores have

yielded coefficients of correlation in excess of .90, with an obtained Kendall coefficient of concordance for the original 394 subjects of .477, which is significant at the $p < .005$ (Holmes and Rahe 1967). In a study replicating the scaling methods, similar results were yielded (Holmes and Masuda 1974, pp. 45-46).

Reliability ratings by Casey, Masuda, and Holmes (1967) revealed Pearson Product Moment coefficients of .744 for one year preceding the completion of the questionnaire. Their findings were significant at the .0005 level of confidence.

The SRE has been employed as a measure for assessing an individual's level of stress (Holmes and Masuda 1974, pp. 45-46). The total instrument may be seen in Appendix A.

The sex attitude test developed by this investigator was used to measure sex attitudes in the sample population (Appendix B). The participants were asked to respond on a scale containing the following five categories: Strongly agree, agree, uncertain, disagree, and strongly disagree. For the purpose of this study, a strong positive attitude response was given the rank of "1"; a positive attitude response was given the rank of "2"; an uncertain attitude response was given the rank

of "3"; a negative attitude response was given the rank of "4"; and a strong negative attitude response was given the rank of "5". A score of 30 or below was equated with a positive sex attitude, a score of 31 or above was equated with a negative sex attitude. The score of 30 was arbitrarily set by this investigator and was in concurrence with the panel of experts.

Content validity was established by a panel of five experts. The following persons composed the panel:

1. The first member of the panel is currently in private obstetrical and gynecological practice and is involved in female sexual counseling. In addition, he has attended numerous medical workshops pertaining to human sexuality.

2. The second member of the panel is a clinical psychologist who is currently employed as a researcher by the Texas Department of Mental Health and Mental Retardation. In the past, he was involved in private counseling, including sexual counseling.

3. The third member of the panel is a clinical psychologist who is currently involved in a private counseling practice. Sexual counseling has been his specialty for the past four years.

4. The fourth member of the panel has a Ph.D. in Educational Psychology and is currently a professor at a major university located in central Texas. She is engaged in research concerning female sexuality.

5. The fifth member of the panel is a psychiatric social worker who is currently employed by the counseling center of a major university located in central Texas. Her specialty is sexuality, and she has received training from Masters and Johnson's clinic.

Reliability was established with the Split-Half test. The coefficient was .87, which established reliability at the .05 level of significance.

Data Collection

Certain steps were taken before this investigation began. They included obtaining permission from the thesis committee, the Human Research Review Committee of Texas Woman's University, the agency involved, and by the participants.

Participation in this study was strictly voluntary. The questionnaires contained no identifying data to insure anonymity. Each participant was provided was a written explanation of the study, prior to

participation, including potential risks and benefits, and the procedure for data collection by the consent form. Willingness to participate was evidenced by the participant's and spouse's signatures on Form A (Appendix D). Finally, an offer was made to answer any and all questions concerning the study prior to participation.

The written consent form, the sex background and biographical information sheet, the sex attitude test, the SRE, the answer sheet, and two envelopes were placed in packet form on a table located in the front room of the school. A sign was placed over the table to attract the students' attention to the study. The students were asked to complete the forms within a two-week time span and return the consent form and the answer sheet sealed in the separate envelopes provided to a locked mail box located next to the study packets. No one had access to the key which opened the mail box and the envelopes were collected by this investigator only.

It was first anticipated that approximately 100 students would participate; however, only 28 students participated, and of those 28, only 18 met the subject criteria.

Treatment of Data

One segment of the data was gathered using the SRE. These SRE's were scored according to the instructions accompanying the questionnaire. Another segment of the data was gathered using the sex attitude test. The sex attitude test was scored using a scale of 1 to 5, "1" denoted a positive attitude response, and "5" a negative attitude response. A score of 30 or below was equated with a positive sex attitude, and a score of 31 or above was equated with a negative sex attitude. The sex background and biographic information sheet was used for the purpose of attaining pertinent sexual background and demographic data on the subject. In addition, this form included the self report orgasm scale.

Data were analyzed using the Spearman's Rank-Order Correlation test to measure the strength of the relationship existing between the independent variable, level of stress, and the dependent variable, orgasmic functioning. Significance at the .05 level was the standard significance. The t-test for a small population was employed to test for significance of difference in the mean scores of length of relationship, economic status, and frequency of intercourse. The .05 level

of significance was used as the standard of significance.

Conclusion

A descriptive study was done to determine if a significant relationship existed between the level of stress females are experiencing and their orgasmic functioning. Eighteen subjects from a small campus comprised the sample population. Data were collected using the sex background and biographical information sheet, the sex attitude test, and the SRE. The data were analyzed using the Spearman's Rank-Order Correlation test and the t-test for a small population. The results of these tests will be discussed in the following chapter, Chapter IV, Analysis of Data.

CHAPTER IV

ANALYSIS OF DATA

The purpose of this study was to determine if a significant relationship existed between the level of stress females experience and their orgasmic functioning.

Twenty-eight persons participated in this study; however, only eighteen of these persons met the population criteria. The ten participants were not included in the study for the following reasons: One person failed to complete the sex background and biographical information sheet; another had not experienced orgasm with her sexual partner; two persons had experienced a physical or emotional traumatic sexual incident; two persons rated their relationship with their father in the very poor category; and four persons rated their relationship with their sexual partner in the poor or very poor category. Therefore, the population sample consisted of the eighteen female graduate nursing students who met the population criteria. The sample population consisted of predominately white, married, Protestant

females who exhibited a positive sexual attitude and were not using oral contraceptives. The sample's average age was thirty-two years, average income was \$24,000, and had been involved with their sexual partner on the average of nine years. This is consistent with the general population of the school. This demographic data are presented in Table 1.

Table 1

RACE, MARITAL STATUS, RELIGION, SEX ATTITUDE, AGE,
INCOME, AND LENGTH OF RELATIONSHIP OF THE
SAMPLE POPULATION BY PERCENTAGE

Demographic Variable	Subject (N)	Percentage
<u>Race</u>		
White	16	88.9
Black	<u>2</u>	<u>11.1</u>
Total	18	100.0
<u>Marital Status</u>		
Married	16	88.9
Cohabiting	<u>2</u>	<u>11.1</u>
Total	18	100.0
<u>Religion</u>		
Protestant	15	83.3
Catholic	2	11.1
Jewish	<u>1</u>	<u>5.5</u>
Total	18	100.0
<u>Sex Attitude</u>		
Positive (<30)	17	93.4
Negative (>31)	<u>1</u>	<u>5.5</u>
Total	18	100.0

The subjects were asked to respond to the sex background and biographical information sheet, the sex attitude questionnaire, and the SRE. The data were derived from each of these questionnaires.

The LCU scores derived from the SRE were tabulated for the previous year. The raw scores for the sample population ranged from 117 to 612 total LCU value for the year. Six, or 33 percent, of the sample population experienced mild levels of stress, five, or 28 percent of the sample population, experienced moderate levels of stress, and seven, or 39 percent of the sample population experienced major level of stress. All of the scores for the sample population are shown in Table 2.

TABLE 2

STRESS LEVELS OF THE SAMPLE POPULATION
AS DEFINED BY STRESS SCORES BY PERCENTAGE

Stress Levels	Percentage	X Score	N
Mild (0-199)	33	148.5	6
Moderate (200-299)	28	240.0	5
Major (300+)	38	445.0	7
Total	<u>100</u>		<u>18</u>

The LCU total value for each subject for the previous year was ranked from one to eighteen. The highest LCU value of 612 was given the rank of "1"; the second highest LCU value of 518 was given the rank of "2"; the third highest LCU value of 493 was given the rank of "3"; and so forth until the lowest LCU value of 117 was given the rank of "18".

The subjects were asked to indicate the percentage of orgasms they had experienced during intercourse with the past month. Five categories were available for reply in regard to orgasmic attainment (never, seldom, sometimes, almost always, and always). The category "never" was equivalent to 0 number of orgasmic attainment during 10 intercourse encounters; seldom = 1-3/10; sometimes - 4-6/10; almost always = 7-9/10; and always = 10/10. One, or 5.5 percent of the sample population, rated her orgasmic attainment in the never (0/10) category; two, or 11.1 percent of the sample population, rated their orgasmic attainment in the seldom (1-3/10) category, three, or 16.6 percent of the sample population, rated their orgasmic attainment in the sometimes (4-6/10) category; ten, or 55.5 percent of the sample population rated their orgasmic attainment in the almost always (7-9/10) category; and two, or 11.1 percent of the

sample population rated their orgasmic attainment in the always (10/10) category. The scores may be seen in Table 3.

TABLE 3

ORGASMIC ATTAINMENT SCORES OF
THE SAMPLE POPULATION
BY PERCENTAGE

Orgasmic Attainment Level (# Orgasm/# Sexual Encounters)	Percentage	Subjects (N)
Never (0/10)	5.5	1
Seldom (1-3/10)	11.1	2
Sometimes (4-6/10)	11.1	2
Almost Always (7-9/10)	55.5	10
Always (10/10)	11.1	2
Total	<u>100.0</u>	<u>18</u>

The orgasmic attainment value for each subject was also ranked from one to eighteen. However, in these data, two or more orgasmic attainment scores were tied. When this occurred, the mean rank to all the tied scores based on the span of rank positions equal to the number of tied scores was assigned. Therefore, the two scores in the always (10/10) category which tied for the ranks of "1" and "2" were both ranked 1.5; the ten scores in

the almost always (7-9/10) category which tied for the ranks "3", "4", "5", "6", "7", "8", "9", "10", "11", and "12" were all ranked 7.5; the three scores in the sometimes (4-6/10) category which tied for the ranks of "13", "14", and "15" were all ranked "14"; the two scores in the seldom (1-3/10) category which tied for the ranks "16" and "17" were both ranked "16.5"; and the only score in the category never (0/10) was ranked "18". As with the stress level scores the orgasmic attainment scores were ranked from the highest value to the lowest value.

The orgasmic attainment rank scores were paired with the stress level rank score and tested using the Spearman's Rank-Order Correlation test to examine the independent variable of stress level and the resulting relationship with the dependent variable, orgasmic functioning. Thus, the extent of the relationship between the two was determined. The correlation coefficient was .751 which is significant at the .05 level. Higher levels of stress were significantly correlated with lower orgasmic attainment. A summary of the results is presented in Table 4.

TABLE 4

A CORRELATION OF THE STRESS LEVEL SCORES AND THE
ORGASMIC ATTAINMENT SCORES OF THE ENTIRE SAM-
PLE POPULATION, USING THE SPEARMAN'S RANK-
ORDER CORRELATION TEST

Raw Stress Scores	Ranked Stress Scores	Raw Orgasmic Attainment Scores	Ranked Orgasmic Attainment Scores	D	D ²
612	1	1-3/10	16.5	-15.5	240.25
518	2	4-6/10	14.0	-12.0	144.00
493	3	4-6/10	14.0	-11.0	121.00
425	4	1-3/10	16.5	-12.5	156.25
364	5	7-9/10	7.5	- 2.5	6.25
363	6	4-6/10	14.0	- 8.0	64.00
342	7	7-9/10	7.5	- .5	.25
281	8	7-9/10	7.5	.5	.25
247	9	0 /10	18.0	- 9.0	81.00
239	10	7-9/10	7.5	2.5	6.25
225	11	7-9/10	7.5	3.5	12.14
209	12	10/ 10	1.5	10.5	110.25
192	13	10/ 10	1.5	11.5	132.25
156	14	7-9/10	7.5	6.5	42.25
155	15	7-9/10	7.5	7.5	56.25
152	16	7-9/10	7.5	8.5	72.25
119	17	7-9/10	7.5	9.5	90.25
117	18	7-9/10	7.5	10.5	110.25

$$r_c = .751$$

$$r_\alpha = .475$$

$$df = 18$$

$$\alpha = .05$$

$$\text{If } r_c > r_\alpha \neq H_0$$

The sample population was limited to 11 subjects in order to obtain a homogenous sample. The 11 subjects were married, Protestant, college graduates, not using oral contraceptives, and had a positive sex attitude. Their stress scores and orgasmic attainment scores were correlated using the Spearman's Rank-Order Correlation test in the same manner as described for the entire 18 subject population. The correlation coefficient obtained was .754, which is significant at the .05 level. Higher levels of stress were significantly correlated with lower orgasmic attainment. A summary of the results is presented in Table 5.

The variables, economic status, length of relationship, and frequency of intercourse, were not held constant in the homogenous sample population. Therefore, the data obtained from each of these three variables were analyzed by the t-test for a small population to determine if any or all of the variables were affecting the subject's orgasmic attainment. The population sample (for the entire 18 participants) was divided into two groups: high orgasmic attainment and low orgasmic attainment. A score of 7-9/10 and 10/10 on the orgasmic attainment identified the subject as high

TABLE 5

A CORRELATION OF THE STRESS LEVEL SCORES AND THE
ORGASMIC ATTAINMENT SCORES OF THE HOMOGENOUS
SAMPLE POPULATION, USING THE SPEARMAN'S
RANK-ORDER CORRELATION TEST

Raw Stress Scores	Ranked Stress Scores	Raw Orgasmic Attainment Scores	Ranked Orgasmic Attainment Scores	D	D ²
612	1	1-3/10	9.5	-8.5	72.25
518	2	4-6/10	8.0	-6.0	36.00
425	3	1-3/10	9.5	-6.5	42.25
342	4	7-9/10	4.5	- .5	.25
281	5	7-9/10	4.5	.5	.25
247	6	0 /10	11.0	-5.0	25.00
239	7	7-9/10	4.5	2.5	6.25
192	8	10 /10	1.0	7.0	49.00
152	9	7-9/10	4.5	4.5	20.25
119	10	7-9/10	4.5	5.5	30.25
117	11	7-9/10	4.5	6.5	42.25

$$r_c = .754$$

$$r_{\alpha} = .619$$

$$df = 11$$

$$\alpha = .05$$

If $r_c > r_{\alpha} \neq$

orgasmic attainment and thus was placed in the high orgasmic attainment group. A score of 0/10, 1-3/10, or 4-6/10 on the orgasmic attainment identified the subject as low orgasmic attainment and thus was placed in the low orgasmic attainment group.

The t-test for a small population was utilized to provide an analysis of group mean differences in each of three three aforementioned variables. The following results were obtained:

1. There was a significant difference at the .05 level between the high orgasmic group and the low orgasmic group with respect to economic status. Even though the data revealed a significant difference between the means of the high orgasmic group and the low orgasmic group, the average income for the high orgasmic group was \$19,920, and the average income for the low orgasmic group was \$26,000. Each of these groups fall within the middle income category. The literature reveals that indigent and low socioeconomic groups (Kinsey 1953, p. 379; Bell 1974, p. 5) are more likely to be less orgasmic than middle income groups. Therefore, even though there is a significant statistical difference between the high orgasmic group and the low orgasmic group, there is

evidence in the literature that when groups are within the same income category, the variable of economic status has no bearing upon their orgasmic attainment (Kinsey 1953, p. 379; Fisher 1973, p. 189). In addition, the high orgasmic group average income was lower (\$19,920) than the low orgasmic group income (\$26,000) in this sample population.

2. There was no significant difference at the .05 level between the means of the high orgasmic group and the low orgasmic group with respect to length of relationship. This is inconsistent with the literature findings (Kinsey 1953, p. 384; Gebhard 1966, p. 89).

3. There was no significant difference at the .05 level between the means of the high orgasmic group and the low orgasmic group with respect to frequency of intercourse. This is inconsistent with the literature findings (Kinsey 1953, p. 394; Fisher 1973, p. 121).

The results obtained from each of the three variables are shown in Table 6.

TABLE 6

COMPARISON BETWEEN THE MEANS OF THE HIGH ORGASMIC GROUP AND THE LOW ORGASMIC GROUP ON THE VARIABLES INCOME, LENGTH OF RELATIONSHIP, AND FREQUENCY OF INTERCOURSE IN THE SAMPLE POPULATION

Income		Length of Relationship		Frequency of Intercourse	
High Orgasmic Group (n=12)	Low Orgasmic Group (n=6)	High Orgasmic Group (n=12)	Low Orgasmic Group (n=6)	High Orgasmic Group (n=12)	Low Orgasmic Group (n=6)
$\bar{x}=19.91$	$\bar{x}=26$	$\bar{x}=10.04$	$\bar{x}=7.92$	$\bar{x}=5.42$	$\bar{x}=7.08$
$t_c= 4.23$		$t_c= 2.0$		$t_c= 1.69$	
$t = 2.12$		$t = 2.12$		$t = 2.12$	
$df= n-2=16$		$df= n-2$		$df= n-2=16$	
$= .05$		$= .05$		$= .05$	

On the basis of the above findings, the null hypothesis was rejected that, "There will be no significant relationship between the level of stress a female is experiencing, measured in LCU's, and her orgasmic functioning in coitus." There was a significant correlation between higher levels of stress, measured in LCU, and lower female orgasmic attainment. The probability

that the correlation between the stress levels and orgasmic functioning could have happened by chance alone is less than 5 in 100.

Summary

In conclusion, stress levels and female orgasmic functioning were examined. The results from the examination of the data indicated that higher levels of stress were significantly correlated with lower levels of orgasmic attainment in this sample population.

CHAPTER V

SUMMARY

Recent statistics reveal that a number of women have difficulty in reaching the orgasm threshold. Numerous publications and studies implicate a variety of factors which may hamper orgasmic functioning in females. This study investigated one such factor--stress. A growing number of researchers have demonstrated that stress diminishes sexual drive and may be involved in the etiology of female sexual dysfunctions. However, research such as this study, was needed to ascertain whether stress also diminishes a female's orgasmic capacity.

The purpose of this study was to examine stress levels of female graduate nursing students as measured in LCU and to determine if there was a significant relationship between stress levels and female orgasmic functioning in this sample population.

The review of the literature considered female sexual dysfunctions, stress and life change, subsequent hormonal change as a result of stress, and its effect on female sexuality and the female orgasm.

This was a descriptive study. The aim was to ascertain the relationship between levels of stress and female orgasmic functioning. A questionnaire, the SRE, developed by Holmes and Rahe was administered to the sample population to measure the amount of stress, expressed in LCU, that the subjects had experienced. The sex attitude questionnaire, developed by this investigator, was administered to measure sex attitudes in the population sample. Orgasmic functioning was measured by self-report and was contained within the sex background and biographical data information sheet.

The data gathered from the subjects were statistically analyzed using the Spearman's Rank-Order Correlation and the t-test for a small population. On the basis of the results obtained from these tests, the null hypothesis was rejected, that "There is no significant correlation between the level of stress females are experiencing measured in LCU, and their orgasmic functioning in coitus." There was a statistically significant correlation ($p < .05$) for the entire population sample and the homogenous population sample. The findings indicate that, under conditions in which this study was conducted, the level of stress affects a female's orgasmic functioning.

Conclusions

The conclusions which resulted from this study were as follows:

1. That there was a statistically significant correlation between higher levels of stress and lower levels of female orgasmic attainment in the entire population sample
2. That there was a statistically significant correlation between higher levels of stress and lower levels of female orgasmic attainment in the homogenous population sample
3. That there was a statistically significant difference between the means of the high orgasmic group and the low orgasmic group with respect to economic status in this sample population. However, both groups were considered to be in the middle income category
4. That there was no significant difference between the means of the high orgasmic group and the low orgasmic group with respect to length of relationship in this sample population.

5. That there was no significant difference between the means of the high orgasmic group and the low orgasmic group with respect to frequency of intercourse
6. That it was found that all the subjects exhibited positive sex attitudes except one subject

Implications

As a result of the findings of this study, it is suggested that:

1. Nurses recognize that life change produces stress
2. The quantity and quality of life change may cause a variety of maladies including sexual disorders; therefore, nurses should attempt to reduce the possibility of encounter with stressors
3. Nurses become aware of the effect stress may have on female sexuality
4. Sexual responsiveness and orgasmic capacity may be enhanced if stress levels are lowered, thus nurses should attempt to lower stress levels

5. That nurses gain knowledge of human sexuality, improve methods of preventative treatment of sex problems, and promote the utilization of sexual counseling in the delivery of total health care
6. That human sexuality be offered in the curriculum of nursing schools and inservice education
7. That nurses recognize that sexuality is an important aspect of a total person which must be considered if the nurse administers total patient care
8. That more nurses become involved in the area of human sexual research

Recommendations

The recommendations resulting from this study are:

1. That a similar study be conducted, using a larger stratified sample
2. A similar study be conducted using those subjects who did not meet this population criteria and compare them to these subjects who met this population criteria

3. That a similar study be implemented comparing female and male responses
4. That a study be implemented measuring the hormonal levels, specifically the stress hormones and the sex hormones of the subjects

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APPENDIX A
THE SCHEDULE OF RECENT EVENTS

APPENDIX A-THE SCHEDULE OF RECENT EVENTS

Coding and General Instructions

1. Pencils--Use any type of soft lead pencil. Do not use an ink or ballpoint pen.
2. All answers are to be recorded on the separate answer sheet.
3. Regardless of the number of alternatives provided, please mark only one answer per question.

Please indicate which of these events have occurred in your life during the post year, using the following alternatives:

1. Has occurred
 2. Has not occurred
1. Death of spouse
 2. Divorce
 3. Marital separation
 4. Jail term
 5. Death of close family member
 6. Personal injury or illness
 7. Marriage
 8. Fired at work
 9. Marital reconciliation
 10. Retirement
 11. Change in health of family member
 12. Pregnancy
 13. Sex difficulties
 14. Gain of new family member
 15. Business readjustment
 16. Change in financial state
 17. Death of close friend
 18. Change to different line of work
 19. Change in number or arguments with spouse
 20. Mortgage over \$10,000
 21. Foreclosure of mortgage or loan
 22. Change in responsibilities at work
 23. Son or daughter leaving home
 24. Trouble with in-laws
 25. Outstanding personal achievement
 26. Wife (or husband) begins or stops work
 27. Begin or end school

28. Change in living conditions
29. Revision of personal habits
30. Trouble with boss
31. Change in work hours or conditions
32. Change in residence
33. Change in schools
34. Change in recreation
35. Change in church activities
36. Change in social activities
37. Mortgage or loan less than \$10,000
38. Change in sleeping habits
39. Change in number of family get-togethers
40. Change in eating habits
41. Vacation
42. Christmas
43. Minor violations of the law

APPENDIX B
SEX ATTITUDES

APPENDIX B-SEX ATTITUDES

Please indicate your reaction to each of the following statements using the following alternatives:

1. Strongly agree
2. Agree
3. Uncertain
4. Disagree
5. Strongly disagree

1. I usually participate in sexual activities because that is what my partner wants.
2. The main purpose for intercourse should be to conceive a child.
3. Women should be able to enjoy sex.
4. Women should not have the same sexual freedoms that men do.
5. I initiate sexual activities with my partner.
6. Sexual relations are pleasureable.
7. I feel I am well adjusted sexually.
8. Attaining orgasm is desireable during sex.
9. I often get "uptight" about being touched.
10. Sexual pleasures help build a bad moral character.
11. I usually do not get much pleasure from my sexual activities.
12. I often feel I am sexually taken advantage of.
13. When having sex men experience more pleasure than women.
14. I often have had sex when I didn't want it.
15. I do not enjoy intercourse.

Developed by Clarice B. Doyle

APPENDIX C

SEX BACKGROUND AND BIOGRAPHICAL INFORMATION

APPENDIX C--SEX BACKGROUND AND BIOGRAPHICAL INFORMATION

Please answer each question as it applies to you. Remember regardless of the number of alternatives provided, please mark only one.

1. Age

- | | |
|----------|---------------|
| 1. 20-21 | 6. 31-35 |
| 2. 22-23 | 7. 36-40 |
| 3. 24-25 | 8. 41-50 |
| 4. 26-27 | 9. 51 or over |
| 5. 28-30 | |

2. Sex

- | | |
|---------|-----------|
| 1. Male | 2. Female |
|---------|-----------|

Race

- | | |
|----------|---------------------|
| 1. White | 3. Mexican-American |
| 2. Black | 4. Other |

4. Marital Status

- | | |
|---------------|-------------|
| 1. Married | 4. Single |
| 2. Seperated | 5. Divorced |
| 3. Cohabiting | |

5. Please select the one alternative that best describes your educational status

- | | |
|------------------------------|-----------------------------|
| 1. High School Graduate | 3. College Graduate |
| 2. Technical School Graduate | 4. Graduate School Graduate |

6. Which one of the following alternatives best describes your present socioeconomic status

- | | |
|-------------------|-------------------|
| 1. 5,000 or under | 5. 21,000-25,000 |
| 2. 6,000-10,000 | 6. 26,000-30,000 |
| 3. 11,000-15,000 | 7. 31,000-35,000 |
| 4. 16,000-20,000 | 8. 36,000 or over |

7. Religion

- | | |
|---------------|-----------|
| 1. Catholic | 3. Jewish |
| 2. Protestant | 4. Other |

8. Please indicate the quality of the relationship you experienced with your father

- | | |
|--------------|--------------|
| 1. Excellent | 4. Fair |
| 2. Very good | 5. Poor |
| 3. Good | 6. Very poor |

Please indicate the quality of the relationship you presently experience with your sexual partner

- | | |
|--------------|--------------|
| 1. Excellent | 4. Fair |
| 2. Very good | 5. Poor |
| 3. Good | 6. Very poor |

10. Please indicate how long you have been sexually involved with your present sexual partner

- | | |
|---------------|---------------------|
| 1. 0-3 years | 4. 12-15 years |
| 2. 4-7 years | 5. 16 years or more |
| 3. 8-11 years | |

11. Is your present sexual partner a male

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

12. Have you experienced orgasm through intercourse with your present sexual partner (Orgasm is defined as a climax of intense feeling followed by quietude and relief)

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

13. Are you presently involved in more than one sexual relationship

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

14. Do you have any physical illness or physical restriction which might interfere with your orgasmic attainment, i.e. advanced diabetes, clitoral adhesions.

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

15. Do you have pain with intercourse (dyspareunia or vaginismus)

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

16. Have you ever been involved in any physical or emotional traumatic sexual experience

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

17. Are you presently taking any male hormones (androgens)

- | | |
|--------|-------|
| 1. Yes | 2. No |
|--------|-------|

18. Are you presently pregnant
1. Yes 2. No
19. Are you presently taking birth control pills (oral contraceptive)
1. Yes 2. No
20. Please indicate the number of times you have engaged in intercourse during the past month
1. 0-4 3. 9-12
2. 5-8 4. over 12
21. Please indicate the number of times you have experienced orgasm during intercourse within the past month (Orgasm is defined as a climax of intense feeling followed by a quietude and relief) (# of orgasm/# of intercourse encounters)
1. Always (10/10) 4. Seldom (1-3/10)
2. Almost always (7-9/10) 5. Never (0/10)
3. Sometimes (4-6/10)

APPENDIX D
SUBJECT CONSENT FORM

APPENDIX D-CONSENT TO ACT AS A SUBJECT FOR RESEARCH AN
INVESTIGATION

I hereby authorize Clarice B. Doyle to perform the following procedure(s) or investigation(s):

This study is being conducted by a graduate Texas Woman's University nursing student. The student is interested in sex research particularly in the area of female sexuality. The purpose of this study is to investigate factors which may affect a females orgasmic response. Orgasm is defined as a climax of intense feeling followed by a quietude and relief.

These forms will allow the student to ascertain which factors may affect female orgasmic functioning. Three questionnaires are included: The Schedule of Recent Events, a sex attutude test and a background and biographical information form. The first form requests that you reveal changes that have occurred in your daily living during the past year and the latter two forms request that your reveal intimate sexual data about yourself.

The procedure of investigation listed in Paragraphs 1 and 2 has been explained to me by Clarice B. Doyle.

The forms do request that you reveal intimate sexual data about yourself which may cause you embarrassment or discomfort. You may also experience undue anxiety by recalling a sexual event. This could possible be harmful

to you. The forms also request that you reveal changes that have occurred in your daily living during the past year. This may cause you undue anxiety or discomfort when recalling the changes.

I understand that the procedures and investigations described in Paragraphs 1 and 2 have the following potential benefits to myself and/or others.

The information may be beneficial to you as it may help you become more aware of your own sexuality and the number of stressors you have experienced in the past year.

The student will strive to maintain complete confidentiality. The forms include no identifying information. Knowledge of your identity is not required. You will not be asked to give your name or any other identification or to answer in your own handwriting. All that is required on the answer sheet is a pencil mark to blacken the answer spaces. The information will be used for research purposes only. However, if you do not wish to reveal sexual or daily life change information please do not participate. Participation in this study is strictly voluntary.

If you wish to participate please complete all the forms as directed and return the forms, sealed in the envelopes provided, to the locked mail box situated in the front room of the school. The envelopes will be collected

by the student only. No one else will have access to the key which will open the mail box. The forms must be returned within two weeks of the time you receive them as all others received after this time will not be included in the study. Your cooperation with this necessary two week time span will be greatly appreciated.

Should you experience any discomfort or wish to stop participating in the study for any reason, please withdraw and destroy your forms and answer sheet. If you find that you are experiencing undue discomfort or anxiety and wish to receive counseling an appropriate referral will be made for you by this investigator upon request.

The results of the study will be reported in my thesis. A copy will be available at the Texas Woman's University Temple Center library should you wish to see the results. If you have any further questions about this study please contact Clarice B. Doyle, 773-6331, Tuesday through Thursday.

An offer to answer all of my questions regarding the study has been made. If alternative procedures are more advantageous to me, they have been explained. I understand that I may terminate my participation in the study at any time.

Subjects signature

Date

If you are married please have your spouse read the consent form as well as the information you reveal discloses information about him as well. Again if you the husband do not wish to have your wife disclose intimate sexual information about your sexual relations do not sign this consent form. Please remember all the information enclosed within this consent form should be read by you before signing.

Subjects spouse signature

Date

APPENDIX E
PERMISSION FOR THE STUDY

TEXAS WOMAN'S UNIVERSITY

Human Research Committee

Name of Investigator: Clarice B. Doyle Center: DentonAddress: 409 Teal Date: 6-6-78Austin, Texas 78734Dear Ms. Doyle:

Your study entitled Stress: Its Relationship to Female Orgasmic Functioning has been reviewed by a committee of the Human Research Review Committee and it appears to meet our requirements in regard to protection of the individual's rights.

Please be reminded that both the University and the Department of Health, Education and Welfare regulations require that written consents must be obtained from all human subjects in your studies. These forms must be kept on file by you.

Furthermore, should your project change, another review by the Committee is required, according to DHEW regulations.

Sincerely,

Chairman, Human Research
Review Committee
at Denton

.cc: Graduate Office

TEXAS WOMAN'S UNIVERSITY
COLLEGE OF NURSING
DENTON, TEXAS

DALLAS CENTER
1810 Inwood Road
Dallas, Texas 75235

HOUSTON CENTER
1130 M.P. Anderson Blvd.
Houston, Texas 77025

AGENCY PERMISSION FOR CONDUCTING STUDY

THE

Texas Woman's University

GRANTS TO

Clarice Doyle

a student enrolled in a program of nursing leading to a Master's Degree at Texas Woman's University the privilege of its facilities in order to study the following problem:

conditions mutually agreed upon are as follows:

1. The agency (~~may~~) *must* be identified in the final report.
2. The names of consultative or administrative personnel in the agency (~~may~~) (~~may not~~) be identified in the final report.
3. The agency (~~wants~~) (~~does not want~~) a conference with the student when the report is completed.
4. The agency is (~~willing~~) (~~unwilling~~) to allow the completed report to be circulated through interlibrary loan.

Other: _____

Date

May 12, 1978

Signature of Agency Personnel

F. H. ... R.N.M.S.

Signature of student

Signature of Faculty Advisor

F. H. ... R.N.M.S.

*Fill out and sign three copies to be distributed as follows: Original - Student; first copy - agency; second copy - T.W.U. College of Nursing.