

A STUDY OF OBSESSIONAL
PERSONALITY AND OBSESSIVE
COMPULSIVE DISORDER IN A
COLLEGE POPULATION

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AND OBSESSIVE COMPULSIVE DISORDER
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An Abstract
Presented to
the Graduate Council of
Austin Peay State University

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in Psychology

by
Rosemary Kehoe Peacher

July 1980

Abstract

The purpose of the present study was to compare business and psychology majors, at both the graduate and the undergraduate level, on the Psychasthenia Scale (Pt. Scale) from the Minnesota Multiphasic Personality Inventory (MMPI), and the Leyton Obsessional Inventory (LOI). Both of these instruments measure obsessional traits and symptoms.

The subjects were 96 students attending Austin Peay State University, located in Clarksville, Tennessee. The test packet was administered both in small groups and individually during the Spring 1980 quarter.

An analysis of variance and the Pearson product-moment correlation technique were used to analyze the data. The scores of the graduates and the undergraduates differed beyond the .05 level on both the Pt. Scale and the LOI, while the LOI symptom scores were significantly different beyond the .005 level. No significant differences resulted between the business and the psychology majors, although an interaction between college major and level of education resulted on both the Pt. Scale and the LOI. The correlation between the Pt. Scale and the LOI proved to be significant beyond the .01 level.

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To the Graduate Council:

I am submitting herewith a Thesis written by Rosemary Kehoe Peacher entitled "A Study of Obsessional Personality and Obsessive Compulsive Disorder in a College Population." I recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts, with a major in Psychology.

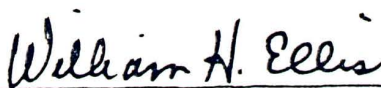

Major Professor

We have read this thesis and recommend its acceptance:


Minor Professor
or
Second Committee Member


Third Committee Member

Accepted for the
Graduate Council:


Dean of the Graduate School

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CHAPTER I

INTRODUCTION

Although the obsessive-compulsive personality has been observed in some non-Western but relatively advanced industrial societies, such as Japan (Gorer, 1943), this personality disorder appears to be largely a product of Western culture, with its strong belief in the Protestant Work Ethic, capitalism, scientific technology, and materialism (Honigsmann, 1967). Carothers (1948) reports an absence of obsessional neuroses among Africans in mental hospitals, and studies of Kenya, Nigeria and the Hutterites indicate that obsessive-compulsive neuroses were rarely found (Costello, 1970).

Many of the traits possessed by obsessional personalities, such as perseverance, industriousness, thriftiness, ambition, self-control, and orderliness, are highly regarded and rewarded within technological societies, promote feelings of self-worth and acceptability, are a source of emotional stability and provide a resistance to stress. Joseph Michaels and Robert Porter (1949) raised the possibility that:

Many of the compulsive tendencies represented by normal concern with cleanliness, orderliness, industriousness, responsibility, respect for law and discipline, etc., may hardly be considered pathologic in a civilized society, for they are practically prerequisites for the high standard of living and the continual striving for improvement which characterize the goals of present-day civilization. (p. 122)

Orlansky (1949) has suggested that obsessive-compulsive traits lead to efficiency in group enterprise and to success for the individual in a competitive, materialistic society. Gerda Willner (1968) has put it this way:

The neurotic personality of today seems to develop more obsessive ideas and compulsive trends than ever before. This may have something to do with recent advances in technology and science, and an emphasis on college education and acquisition of academic degrees . . . Our culture breeds compulsiveness and probably contributes to the increase of the so-called "obsessive-compulsive neurosis." (p. 201)

There is no agreement at the present time as to the exact relationship between the personality disorder and the neurosis, although Freud and most later clinicians and researchers carefully distinguish obsessional personality from obsessive-compulsive neurosis. In summarizing much of the literature, Kline (1967) states that the personality traits are egosyntonic in nature and regarded as useful and even valuable, whereas the symptoms are a definite hindrance and may cause a person to seek treatment. Hays (1972) believes that the personality type may constitute a problem in its own right and may shade into the neurosis itself. This view receives support from the research of Pollitt (1957), who found that two-thirds of the patients he studied possessed obsessional personality traits before the onset of the illness, while Ingram (1961) discovered obsessional traits in 84 percent of his patients

with severe obsessional symptoms.

In a factor analytic study of 100 neurotic patients, Sandler and Hazari (1960) obtained two relatively independent personality constellations from responses to 40 items related to obsessive-compulsive character traits and symptoms. They considered the first factor, relating to cleanliness, neatness, and perfectionism, to be a source of pride and self-esteem within the personality. The second factor contained items which resembled minor degrees of the symptoms of an obsessional neurosis, such as the intrusion of unwanted thoughts and compulsive acts, worry, doubt, and procrastination. The authors postulated that in this latter group there could exist a continuum ranging from the obsessional personality to obsessional neurosis.

In a study using 93 normal subjects, Kline (1967) concluded that there can be no doubt that the symptom/trait dichotomy is a useful distinction. He believes that "the traits represent a successful ego defence while the signs and symptoms are evidence of a breakdown of defence mechanisms" (p. 153).

Russell Monroe (1974) states that the three essential elements of obsessive neuroses are a feeling of subjective compulsion, the resistance to it, and retention of insight. He explains that as long as there is recognition by the person of the nonsensical quality of the symptoms and an attempt to resist the symptoms, it is a true obsessional

neurosis. On the other hand, the individual described as an obsessive character demonstrates behavioral patterns typical of the obsessive neurotic, but does not see his behavior as symptomatic.

Marks (1965) succinctly states that the dividing line between the personality disorder and the neurosis is whether the items aid or hamper the person in his daily activities. Where they do not hinder him/her, they can be regarded as personality traits; where they do, the items become obsessional symptoms.

The latest description of the two entities from Diagnostic and Statistical Manual of Mental Disorders, Third Edition (DSM-III) is as follows:

Obsessive Compulsive Disorder (or Obsessive Compulsive Neurosis): The essential features are recurrent obsessions or compulsions. Obsessions are recurrent, persistent ideas, thoughts, images, or impulses that are egodystonic, that is, they are not experienced as voluntarily produced, but rather as thoughts that invade consciousness and are experienced as senseless or repugnant. Attempts are made to ignore or suppress them. Compulsions are repetitive and seemingly purposeful behaviors that are performed according to certain rules or in a stereotyped fashion. The behavior is not an end in itself, but is designed to produce or to prevent some future event or situation. However, the activity is not connected in a realistic way with what it is designed to produce or prevent, or may be clearly excessive. The act is performed with a sense of subjective compulsion coupled with a desire to resist the compulsion (at least initially). The individual generally recognizes the senselessness of the behavior (this may not be true for young children) and does not derive pleasure from carrying out the activity, although it provides a release of tension. (p. 234)

Compulsive Personality Disorder: The essential feature is a Personality Disorder in which there generally are

restricted ability to express warm and tender emotions; perfectionism that interferes with the ability to grasp "the big picture"; insistence that others submit to his or her way of doing things; excessive devotion to work and productivity to the exclusion of pleasure; and indecisiveness. (p. 326)

Now that these phenomena have been described, the etiology of obsessive-compulsive illness will be discussed. Freud was the first theorist who attempted an explanation of the genesis of obsessive-compulsive behavior. According to him and his early followers, the "anal character", as they labeled it, is a result of conflicts between parents and child over bowel training in the second and third years of life. If the parents are too punitive, impatient, and intolerant of the child's natural willfulness and autonomy, or if the bowel training occurs either too early or too late or is experienced as extremely frustrating or gratifying, the struggle intensifies. According to classical analytic theory, this may result in a predominantly anal or obsessive-compulsive character structure in the child (Pollak, 1979). Research reported in Carr (1974), Pollak (1979), and Templer (1972) does not support Freud's theory. In suggesting that toilet training is just part of a larger and more influential child-rearing pattern, Pollak states:

In this view, obsessive-compulsive style is seen as largely socially learned behavior that results from the imitation and modeling of significant others over a number of years throughout the childhood period. (p. 229)

Beloff (1957) concludes that while the anal character is not related to toilet training practices, it is strongly

associated with the degree of anal character exhibited by the mother. In support of this belief, Dahlstrom and Welsh (1960) report correlations between mother and daughter reaching as high a level as .73 on the Psychasthenia (Pt.) Scale and .78 on the Schizophrenia Scale of the Minnesota Multiphasic Personality Inventory (MMPI) (Hathaway & McKinley, 1943). Coppen, Cowie, and Slater (1965) found a substantial correlation averaging .415 for extraversion and .405 for neuroticism, with correction for attenuation, between a mother and her children in the families of male neurotic patients.

The post-Freudian psychiatrist, Henry P. Laughlin (1967), evolved his own statement regarding the etiology of obsessions. He stated that the key problem in generating an obsessive illness is the mother's rejection of the child's negative feelings. He agrees with Sandor Rado, who emphasizes that it is not anality but the mode of enraged defiance, alternating with guilty fear, which stamps the obsessive's neurotic style. Rado (1974) states:

The mother-child conflict provokes in the child a struggle between his own guilty fear and his own defiant rage. It is a characteristic of the type of child under consideration that his guilty fear is always somewhat stronger; sooner or later, it represses his defiant rage. Henceforth, his relationship to the mother, and soon to the father, will be determined by this motivating system: guilty fear over defiant rage or, obedience versus defiance. (p. 198)

The next etiologic tenets to be discussed, cited by Adams (1973), are those of Leon Salzman and Bingham Dai.

They emphasize a particular parental behavior that puts them into sympathy with the theories of the neo-Freudians such as Sullivan, Horney, and Fromm. Salzman and Dai believe that the key to this behavioral style is the obsessive child's sense of being out of phase with the parents, and of not being understood and loved. The ardent efforts to mold, control or shape the child result in the child feeling that he is bad as he innately and naturally is. Salzman (1963) has stated his concise etiology as follows:

The history of obsessional development is as varied as one's environment and the personality of one's parents. The consistent theme in all obsessionals is the presence of anxieties about being in danger because of an incapacity to fulfill the requirements of others and to feel certain of one's acceptance. (p. 90)

In Adams' investigation of the views of other authors and in his work with obsessive children, he has arrived at his own conclusions as to the factors involved in bringing about an obsessional illness. He discovered that the parents of the 49 children he treated were:

motorically underactive but verbally hyperactive, and as Harry Stack Sullivan stated of the talk of an obsessive adult, so we can say of the talk of the parent of an obsessive child: "(while it) sounds pretty good, it actually does not communicate--or rather, it miscommunicates, misinforms, and misdirects attention" . . . on behalf of the obsessive child, one might wish to prescribe the reduced talking that is said to occur in culturally deprived households. (p. 61)

Other features of the parents' lifestyle were a high positive evaluation of etiquette and of conventional correctness,

the value they placed upon a form of social isolation or withdrawal, their emphasis on cleanliness, and their strict adherence to an instrumental morality with overgoodness as a way of control ("think good thoughts"). Adams believes that the children learn to obey compulsively the letter of the law, and to obsess about the spirit. In summary, "it could be that the children have the symptoms but the parents have the disease, calling it a virtue" (p. 241).

Now that the description and the etiology of obsessive-compulsive illness have been discussed, this next section will present demographic data describing who, statistically, is most likely to contract this illness. Regarding gender differences, it is possible to find studies supporting the view that obsessive-compulsive disorder is predominantly a disease of either sex. The reported proportions of men to women range from 8 percent to 73 percent (Beech, 1974). DSM-III (1980) reports that while obsessive-compulsive disorder is equally common in males and in females, compulsive personality disorder is more frequently diagnosed in males. In two studies by Adams (1972, 1973), male children comprise 77 percent and 80 percent of his samples, respectively. Among children, he concludes that obsessiveness is primarily a male disorder.

Even though much has been written about the obsessive-compulsive neurosis, it is a relatively rare occurrence. Woodruff and Pitts (1964) estimate the maximum prevalence

among the general United States Caucasian population to be 0.05 percent, or five persons of all ages in every 10,000. Goodwin, Guze, and Robins (1969) believe obsessional neurosis to be one of the rarest of the major psychiatric illnesses, representing no more than 1 percent of inpatient and outpatient populations and 4 percent of the total "neurotic" group. No statistics are available for determining the prevalence of the personality disorder since unless a person is distressed with symptoms, he or she would rarely seek treatment. DSM-III (1980) reports the disorder to be common.

Typically, obsessive-compulsive illness begins during adolescence or young adulthood. After the age of 20 years, the risk declines for all population groups (Adams, 1973). In a review of 13 studies from seven countries, involving a total of 816 patients, Goodwin et al. (1969) found that 65 percent developed the disorder before age 25. It was common for the syndrome to begin before age 15, and as early as age 6. In 1937 Woolley declared that the age of onset reported in the literature ranged from 18 months to 88 years, the majority occurring before the age of 25 years. The average age of onset for Adams' study of 49 children was 5.8 years, with a range from 1 to 14 years (1973).

Investigating birth order, Kayton and Borge (1967) found that 31 of 40 patients with an obsessive-compulsive disorder were firstborn or only children, contrasted to 11

of the 40 control patients. Statistically, that difference was significant at the .001 level. The authors attribute this occurrence to three factors: "A period of concentrated exposure to adults without sibling influence; greater achievement expectations of the child; the relative inexperience of the parents in their roles" (p. 753).

Supporting Kayton's and Borge's findings are those of Adams (1973). Thirty-two of the 49 children in his study were either only children (5) or firstborn (27). Eight were middle children, while nine were lastborn.

Another variable that has been correlated with obsessive-compulsive neurosis is intelligence. Payne (1973) has summarized the data from a number of published studies, presenting the results obtained from the Wechsler Bellevue Full Scale IQ Test and the Raven's Progressive Matrices Test, for different groups of patients. Pertinent data from Payne (p. 426) is as follows:

Category	Mean IQ
Neurotic (unspecified)	103.63
Hysteric	106.11
Psychopath	100.64
Obsessive-compulsive	114.16
Anxiety neurosis	109.65
Neurotic depression	109.28
Total introverted neurotics	110.36
Total extraverted neurotics	103.74

These results are in agreement with data reported by Eysenck (1947).

Rosenberg's (1967) study of 47 obsessive patients resulted in significant findings on Cattell's 16 Personality

Factor (16 PF) B scale, among others. He states that Factor B+ indicates general mental ability and intelligence, and that this finding supports the now-accepted view that obsessives are above average in intelligence. All of the research summarized by Templer (1972) is in agreement with the above findings, with the most noteworthy being that of Greenacre. One quarter to one third of his 86 obsessives had attained a college or professional school education, and this was in 1923!

In a study by Adams in 1972, it appeared that obsessive children come from a home that would normally be thought to promote health and success. Of the 30 children in the sample, 26 lived in intact families with both of their parents. All were Caucasian, although the clinic served a population of 30 percent Black. The average number of educational years was 15 for the fathers, and 14.3 for the mothers; as a group, the parents had a higher economic standing than the typical United States population. The religious background was predominantly Protestant (83 percent). From these data, it would appear that the incidence of obsessive neurosis is increased among intelligent, middle class, Anglo-Saxon, Protestant children.

One major personality factor which has been generously discussed and researched in the literature is the relationship between extraversion and obsessional neurosis. According to Eysenck (1947, 1958, 1960, 1965), based on Jung's hypothesis,

neurotic patients suffering from obsessional neurosis, anxiety states and neurotic depression (collectively labeled dysthymic patients) have low extraversion scores, while patients with hysteria or psychopathic personality have normal or raised extraversion scores. A large number of independent studies have found significant negative correlations between measures of obsessionality and those of extraversion (Beloff, 1957; Foulds, 1965; Kendell & DiScipio, 1970; Kline, 1967; Rosenberg, 1967). In Beloff's study, examining a normal population, there was a significant positive correlation of .34 between obsessional traits and thinking introversion, while a slight negative correlation resulted between anal traits and social introversion, as measured by the Guilford Test of Factors. Whether introversion is a cause or an effect of the tendency for obsessional behavior is still not known, although the latter could be implied from the following passage written by Sigmund Freud in 1907:

Any disturbance of it [a compulsive ritual] is tolerated with difficulty, and the presence of other persons during the performance of it is almost always out of the question. (1959, p. 26)

In discussing the desire of an obsessional person for solitude, Adams (1973) writes:

Whatever happens inside--that is, covertly--is what the obsessive child prizes. He literally spends every hour of the day on internal affairs such as brooding, doubting, obsessing, and so on. He respects these solitary actions. Although they are disadvantageous in some ways, they have their compensations for his pride and self-glorification.

He wants to remain riveted to "thinking," to inner as opposed to extrovert activities, to solitary as distinguished from gregarious acts. He wants to cling to mental maneuvers. The internal is his preferred arena . . . even after becoming symptom-free, these children persist in respecting what goes on in one's head more highly than what goes on in outer reality. (pp. 86-87)

Although there are many questionnaires and inventories purportedly measuring the behavior traits and symptoms called obsessive-compulsive, there are few studies which correlate these various measures. Two studies to be discussed presently report the relationship between the Pt. Scale of the MMPI and tests measuring obsessionality. Although Kline (1967) did not directly correlate the Pt. Scale with the Hazari test of traits and symptoms, he found that on the factor largely measuring obsessive traits (a loading of .763), the Pt. Scale had a loading of .096. Comparatively, on the factor with a .396 loading from the Hazari symptom items, the Pt. Scale contributed a .705 loading. Indirectly, it can be seen that the Pt. Scale is more similar to the Hazari symptom questions than to the trait items. In Foulds' (1965) study, the Pt. Scale correlated $-.11$ with the Hysteroid: Obsessoid Questionnaire, which is scored in the direction of hysteria. This finding did not attain significance.

A few studies have investigated the differences in obsessive characteristics and behavior among various occupational groups. The obsessive-compulsive lifestyle is seen as an attempt to ward off anxiety resulting from

uncertainty and insecurity. The analytic theorists would call this a defense mechanism utilized by certain personality types. If vocational choice can likewise be seen as an expression of personality, then there is reason to believe that different occupational groupings would also differ as to the personality dimension labeled obsessive-compulsive. Segal (1961), utilizing psychoanalytic personality theory in making his predictions, found partial support for his hypothesis that accounting students would demonstrate a greater degree of obsessive-compulsive characteristics than creative writing students. The accounting group was less tolerant of ambiguity, more restrained in expressing hostile feelings, and more controlled emotionally.

A study by Schlesinger (1963) was based on the assumption that persons demonstrating anal traits will choose jobs offering opportunities for utilizing these traits and that all persons choosing a particular vocation will have a common core of these characteristics. Occupations consisting of activities that could be described in anal compulsive terms were selected, and then students preparing to enter these occupations were studied to determine whether they possessed anal characteristics in their general, non-occupational behavior. In her comparison of three groups, Schlesinger found a significantly greater anal orientation in accounting and engineering students as compared with educational psychology students.

In the present study, two majors were chosen that could be expected to demonstrate different levels of obsessive-compulsive behavior, and which existed at Austin Peay State University at both the graduate and the undergraduate levels. The majors of psychology and business satisfied this demand. Business majors can be conceived as having introjected the values of our capitalistic, materialistic culture (which was said to breed obsessive-compulsive neurosis), while the daily work activities of most business occupations require care and precision about details, and involve the handling, accounting, and accumulation of money (a substitute for feces within the psychoanalytic theoretical framework) as a major goal. In comparison, one of the major roles of a psychologist is not only to be able to feel comfortable with negative feelings (the rejection of negative feelings being the key point of Laughlin in his description of the etiology of this illness), but to help others express and accept all types of feelings, both negative and positive. Therefore, it could be expected that by comparison, psychology majors would have fewer obsessive-compulsive behaviors than business majors.

Both the graduate and the undergraduate students were included in the present study in order to be able to compare two levels of identity and commitment to a chosen future occupation. After a student has declared a major during the

sophomore or junior year, he or she may continue to be shaped by the socialization process of college life itself, and possibly will be as similar to any other undergraduate student as to one in his or her own major. However, a graduate student would theoretically have a deeper level of commitment to a field of study, have all of his or her coursework with the students and professors of that particular major, and have developed a stronger, more clearly defined occupational identity.

The purpose of the present study is twofold. First, it is to compare the test scores of instruments measuring obsessive traits and symptoms, extraversion, and achievement taken by students majoring in either psychology or business, at the undergraduate and the graduate level. Second, it is to compare results from two separate measures of obsessive-compulsive characteristics; namely, the Pt. Scale of the MMPI and the Leyton Obsessional Inventory (LOI).

In particular, the hypotheses to be tested are the following:

1. There will be a significant difference on the Pt. Scale and on the LOI between graduate and undergraduate students.
2. There will be a significant difference on the Pt. Scale and on the LOI between psychology and business majors.
3. There will be a significant positive correlation between the Pt. Scale and the LOI.

4. There will be a significant negative correlation between the LOI and the Contact Personality Factor test, which is scored in the direction of extraversion.

CHAPTER II

METHOD

The Sample

The sample, consisting of 53 females and 43 males attending Austin Peay State University, Clarksville, Tennessee, during the Spring 1980 quarter, ranged in age from 18 to 55 years, with a mean age of 28.7 years. The 96 subjects were equally divided into four groups, in a 2 x 2 design composed of graduate and undergraduate students, and business and psychology majors. Individual instructors in the business and psychology departments volunteered entire classes of students which completed three of the groups. However, the psychology undergraduate students were obtained by asking for volunteers in three lower division psychology classes, and they were promised extra credit toward their course grade for participating in the present study. It is believed that this exception may have influenced the results and will be discussed in a later chapter.

Since one major purpose of the study was to compare test scores of the graduate students with those of the undergraduates, it was desirable that there be a maximum number of educational years between these groups, while still satisfying the demand that the subjects have declared either business or psychology as a major. Because of the

difficulty of obtaining psychology undergraduate students, however, it was impossible to fulfill this requirement. Although none of the psychology undergraduates had business majors, many of the subjects had declared a major in the health and social science fields; in other words, this group labeled "undergraduate psychology" is not a homogeneous sample. Sufficient undergraduate business students were available so that it was possible to eliminate all but the appropriate majors, which included business education, management, and administration; computer science; and accounting. Among the graduate students, it would have been preferable for the subjects to have had the same undergraduate as graduate major so as to provide student groups which would be highly representative of their chosen field and independent of one another. Because of the small number of available graduate students, this demand was not met by a minority of students in each graduate group.

General background information regarding gender, age, birth order, and educational level was obtained and is summarized in Table 1. Because these variables may have affected the major results of the study, they will be discussed in more detail in a later chapter.

Description of the Instruments

The packet which each subject completed consisted of four tests, along with the personal information questionnaire. The Western Personnel Test, Form A (WPT-A) (Gunn

TABLE 1

Size, Distribution, and Characteristics of the Sample

Group	N	Gender		Mean Age	Birth Order:				Educational Level:			
		M	F		Only	First	Mid	Last	Fresh.	Soph.	Jr.	Sr.
Graduate Business	24	16	8	32.2	2	9	10	3	-	-	-	-
Graduate Psychology	24	10	14	30.8	3	14	3	4	-	-	-	-
Undergrad. Business	24	12	12	24.9	0	4	8	12	1	19	4	0
Undergrad. Psychology	24	5	19	26.8	2	6	10	6	7	11	4	2
Graduate Students	48	26	22	31.5	5	23	13	7	-	-	-	-
Undergraduates	48	17	31	25.9	2	10	18	18	8	30	8	2
Business Majors	48	28	20	28.6	2	13	18	15				
Psychology Majors	48	15	33	28.8	5	20	13	10				

& Manson, 1962) is a 5-minute, timed, mental ability instrument consisting of 24 items, arranged in order of increasing difficulty. The validities of the WPT test forms were determined by comparing raw scores with those of the Wonderlic Personnel Test, Form B. Coefficients of correlation ranged from .811 to .851, with the WPT-A having a correlation of .851.

The Psychasthenia Scale (Pt. Scale) from the Minnesota Multiphasic Personality Inventory (MMPI) was developed to measure the general symptomatic pattern labeled psychasthenia, or the obsessive-compulsive syndrome. The 48 items in this scale cover a variety of symptoms and behaviors in addition to the obsessive ruminations and the compulsive behavioral rituals, including abnormal fears, worrying, difficulties in concentrating, guilt feelings, self-critical feelings and attitudes, and excessive vacillation in making decisions. The anxiety measured in the Pt. Scale is usually of a long-term nature (trait anxiety) as opposed to anxiety due to situational stress (state anxiety), which may account for reliability estimates that are among the largest values for any of the MMPI scales (Dahlstrom & Welsh, 1960).

The Contact Personality Factor, Form A (CPF-A) is a personality questionnaire developed by Dr. Raymond B. Cattell (1954) as a result of his research on the nature of extraversion. It measures exactly what is measured by the second-order extraversion factor derivable from Cattell's

16 Personality Factor Questionnaire. The five basic personality factors within the CPF are: Factor A (reserved, aloof versus warm, outgoing), Factor E (submissive versus dominant), Factor F (sober, serious versus enthusiastic), Factor H (shy versus adventurous), and Factor Q2 (group dependent versus self-sufficient). The CPF is a 10-minute test consisting of 40 questions in each form. Of these, 34 questions are personality factor items and six questions are distortion items. (Since the questionnaire was developed for use in business and industry, a distortion or lie scale was developed in order to counteract the job applicant's motivation toward showing him/herself in the most favorable light).

The Leyton Obsessional Inventory (LOI) was constructed by John Cooper (1970) during a study of normal families outside of London, England. Although the inventory contains both a male and a female version, the male version, consisting of 68 items, was used for all subjects in the present study. This allowed for direct comparisons between groups which did not have an equal distribution of the sexes, and secondly, the male version of the test was more applicable to college students (for example, the word "housework" was changed to "work"). The LOI was chosen for the present study because it gives a more detailed and extensive coverage of obsessional complaints than other published inventories, and it is able to discriminate obsessional

traits from obsessional symptoms. The questionnaire contains 46 items referring to topics which are commonly the basis of obsessional symptoms (recurring thoughts, checking, dirt and contamination, dangerous things, personal cleanliness and tidiness, household cleanliness, order and routine, repetition, over-conscientiousness, and lack of satisfaction), and these are called the "symptom questions." In addition are 23 items (22 are used in the male version) asking questions about meanness, irritability, stubbornness, pedantry, conscientiousness, punctuality, and hoarding, and these are labeled the "trait questions."

Although the LOI is in the developmental stage as a clinical tool, it is valid in that it differentiates obsessional patients and normal subjects with very little overlap, which is a disadvantage of other obsessive-compulsive questionnaires.

Administration and Scoring

The tests, taken in the above order of description, were administered both on a classroom (group) basis and an individual basis, although the same instructions were given to all subjects. Testing occurred over a one-month period, with the majority of testing taking place during one week. All test packets were completed in a single sitting. Confidentiality was assured to all participants, and a means of their obtaining the final results of the

research was given after testing was completed.

Scoring of all tests was done by hand according to the instructions accompanying each test. Completed forms were checked to make certain that all items within each of the test packets had been answered; any with unanswered items were eliminated from the study.

CHAPTER III

RESULTS

Using a 2 x 2 analysis of variance technique, Hypothesis One was confirmed for the Pt. Scale, $F(1, 92) = 4.23$, $p < .05$; for the LOI total score, $F(1, 92) = 6.56$, $p < .05$; and for those items on the LOI measuring symptoms, $F(1, 92) = 10.99$, $p < .005$. The analysis of variance failed to confirm Hypothesis Two. However, a college major x level of education interaction resulted on the Pt. Scale, $F(1, 92) = 3.98$, $p < .05$; on the LOI total score, $F(1, 92) = 4.48$, $p < .05$; and on the LOI trait score, $F(1, 92) = 4.43$, $p < .05$.

Hypothesis Three was confirmed for all three LOI scores: the total score, the symptom score and the trait score. The Pearson product-moment correlations were .58, .63, and .34, respectively, and all were significant beyond the .01 level. Although the correlation was in the direction predicted, Hypothesis Four was not supported.

The means and standard deviations for each of the 15 variables are listed in Table 2. The sample was equally divided between business and psychology majors (Variable 1), and between undergraduates and graduates (Variable 2). Fifty-five percent of the sample was female (Variable 3), while the mean year of birth was 1951.72 (Variable 4). Variables 5, 6, and 7 are indicative of the number of subjects representing each ordinal position; i.e., only

TABLE 2
Means and Standard Deviations

VARIABLE	MEAN	STANDARD DEVIATION
1 Major	.500	.500
2 Level	.500	.500
3 Gender	.552	.497
4 Year of Birth	51.719	8.339
5 Only Child	.073	.260
6 First Child	.344	.475
7 Middle Child	.323	.468
8 Class	3.542	1.541
9 WPS	13.760	2.850
10 Pt. Scale	11.844	6.675
11 CPF	36.229	5.326
12 Lie Scale	6.135	1.669
13 LOI	23.125	11.772
14 Symptoms	14.615	8.540
15 Traits	8.510	4.287

child, first child, and middle child, respectively. The average class year was between the junior and senior years (Variable 8). The remaining variables, 9 through 15, indicate the mean test scores for the sample.

On the WPS, the sample achieved a mean score of 13.76, which represents approximately the 52nd percentile as compared with college students. On the Pt. Scale, a mean number of 11.84 items was checked, while the mean score on the CPF test was 36.23, falling into the rank labeled "ambivert" as interpreted in the test manual. The mean score of the lie scale indicates that little distortion occurred in the CPF score. Variable 13 indicates the total score of the LOI, while Variables 14 and 15 divide the LOI total into a symptom and a trait score.

The Pearson product-moment correlation technique was used to correlate each of the 15 variables in the present study with all other variables. All correlations are listed in Table 3. Negative coefficients listed for Variables 1, 2, and 3 indicate correlations with business majors, graduate students, and males, respectively, while positive coefficients under those variables specify a correlation with psychology majors, undergraduates, and females.

Table 4 presents the test score means for the subjects grouped with respect to major and level (section A); to major (section B); and to education level (section C).

TABLE 3

Intercorrelations of All Variables

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Major	1.00	.00	<u>.27</u>	-.01	.12	.15	-.11	-.01	-.11	.02	-.07	.04	-.14	-.13	-.11
2 Level		1.00	.19	<u>.34</u>	-.12	<u>-.29</u>	.11	<u>-.95</u>	<u>-.41</u>	<u>.21</u>	.00	.04	<u>.25</u>	<u>.32</u>	.06
3 Gender			1.00	.10	.09	-.10	-.01	-.15	.08	<u>.32</u>	<u>-.26</u>	-.19	.18	<u>.24</u>	.03
4 Year Born				1.00	-.11	-.03	-.10	<u>-.36</u>	-.10	<u>.22</u>	.04	-.07	.12	.13	.05
5 Only Child					1.00	-.20	-.19	.11	.14	.03	-.05	.03	-.01	-.03	.02
6 1st Child						1.00	-.50	<u>.29</u>	.01	-.18	.15	.02	-.10	-.16	.03
7 Middle Child							1.00	-.10	-.07	.02	-.01	-.02	.01	.01	.01
8 Class Level								1.00	<u>.37</u>	<u>-.22</u>	-.04	-.05	<u>-.27</u>	<u>-.32</u>	-.09
9 WPS									1.00	.03	-.15	-.19	-.06	-.08	.00
10 Pt. Scale										1.00	-.15	<u>-.38</u>	<u>.58</u>	<u>.63</u>	<u>.34</u>
11 CPF											1.00	.11	-.05	-.07	.01
12 Lie Scale												1.00	<u>-.35</u>	<u>-.39</u>	-.19
13 LOI Total													1.00	<u>.96</u>	<u>.83</u>
14 Symptoms														1.00	<u>.65</u>
15 Traits															1.00

— = .05 level of significance

== = .01 level of significance

TABLE 4

Means of the Instruments in Terms of Sample Distribution

Group	WPS	PT.	CPF	LIE	LOI	SYMPTOMS	TRAITS
A. Graduate/Business	15.46	11.67	36.96	5.83	24.17	14.50	9.67
Graduate/Psychology	14.38	9.25	35.50	6.29	16.13	9.25	6.88
Undergrad./Business	12.67	11.79	36.29	6.29	25.29	16.96	8.33
Undergrad./Psychology	12.54	14.67	36.17	6.13	26.92	17.75	9.17
B. Business Majors	14.06	11.73	36.63	6.06	24.73	15.73	9.00
Psychology Majors	13.46	11.96	35.83	6.21	21.52	13.50	8.02
C. Graduates	14.92	10.46	36.23	6.06	20.15	11.88	8.27
Undergraduates	12.60	13.23	36.23	6.21	26.10	17.35	8.75

CHAPTER IV

DISCUSSION

Hypothesis One stated that there will be a significant difference on the Pt. Scale and on the LOI between graduate and undergraduate students. Undergraduates obtained significantly higher scores on the Pt. Scale, the LOI total score, and the LOI symptom score. There were no significant differences on the LOI trait score. It would appear, therefore, that while the two groups admitted to a similar number of obsessive personality characteristics, which could be considered an asset to college life, the undergraduates experienced more of the life-disrupting behaviors labeled obsessive symptoms. Whether it is the experience of undergraduate education that produces the anxiety, or whether college is a "weeding process" which prevents those high in symptoms from reaching graduate school cannot be determined, of course, from the present study. From data reported in Chapter I relating intelligence to obsessive-compulsive neurosis, it might be expected that the undergraduates, having higher obsessive scores, would also have higher achievement test scores, as measured by the WPS. The graduates, however, had the higher scores, which achieved significance beyond the .01 level.

The method of obtaining the psychology undergraduate group was exceptional, as was briefly mentioned in Chapter

II. Only after personally contacting the volunteers by telephone in order to arrange a time and place of meeting was the testing accomplished. Since there were a few potential subjects who did not present themselves at the arranged time, the 24 who did keep the appointment were being pre-selected on certain characteristics, such as responsibility, determination, and interest in extra credit, all fitting the obsessive personality description. Such an inconsistency in obtaining these subjects may have produced some of the differences between the graduates and the undergraduates as a whole. From Table 4 it can be noted that the undergraduate psychology majors' scores were only slightly different from those of the undergraduate business majors. It may be, therefore, that the exceptional method of obtaining the undergraduate psychology group suppressed the differences between the two majors, which leads directly to the next hypothesis.

Hypothesis Two stated that there will be a significant difference on the Pt. Scale and on the LOI between psychology and business majors. The analysis of variance indicated that there were no significant differences between these two groups. An interaction between college major and level of education did result, however, on the Pt. Scale, the LOI total score and the LOI trait score. While at the undergraduate level the psychology majors scored higher than the business majors, at the graduate level, the business

majors obtained the higher scores (see Table 4, Section A). When averaged, the extreme scores of the two psychology groups cancelled one another, so that when compared with the business students as a whole, no main effect for major was found (see Section B in Table 4). It is possible that the significantly lower scores of the psychology graduate students were a result of their higher level of sophistication and knowledge of personality theory and the use of psychological measures. In this case, they would have been able to answer the inventories in the direction of "normality" because the purpose of the study may have been transparent to them. This situation would not have been true of either the lower division psychology majors or the business majors.

The above findings for the graduate students indicating that business majors obtain higher scores than psychology majors on measures of obsessional behaviors are consistent with those of Segal (1961) and Schlesinger (1963), who found accounting students to be more anally oriented than either creative writing or educational psychology students, respectively. In order to determine whether undergraduate students are homogeneous with respect to obsessive measures, not establishing distinct occupational identities until graduate school, as discussed in Chapter I, a group of undergraduate psychology students obtained in a comparable manner would have to be tested.

Hypothesis Three stated that there will be a significant positive correlation between the Pt. Scale and the LOI. Since the Pt. Scale was extracted from the MMPI, it was not known whether it would be a valid indicator of obsessive-compulsive illness and/or personality. It was, therefore, necessary to compare the findings with another measure of obsessionality, the LOI. The correlations between the Pt. Scale and the three scales of the LOI were among the highest reported in Table 3, and were significant beyond the .01 level. It must be noted that the correlation coefficient between the Pt. Scale and the LOI symptom score was almost twice that between the Pt. and the trait score. It can be said, therefore, that while the Pt. Scale is measuring some of the behaviors labeled obsessive-compulsive personality disorder, it is predominantly measuring those aspects which are part of the obsessive-compulsive neurosis.

Cooper (1970), the originator of the LOI, reported the symptom and trait scores for his group of "normal" males and females, with whom the present sample was compared. All differences between the present sample and the sample in Cooper's study, which was not a college student sample, were significant beyond the .01 level with the exception of the symptom scores of the two groups of males, which was significant beyond the .05 level. Further research may indicate that, in general, college students have significantly higher obsessive-compulsive scores than a "normal" population.

Hypothesis Four stated that there will be a significant negative correlation between the LOI and the CPF test, which is scored in the direction of extraversion. The correlation between the LOI and the CPF was not significant, although it was in the predicted direction. As Table 4 indicates, there was very little variation on the extraversion scale among any of the groups in the present study, regardless of how they were divided. It was concluded that college students have already been pre-selected on the variable of extraversion, regardless of choice of college major, or education level. As a result, the range in CPF scores was too narrow to produce significant correlations.

The findings relevant to Hypothesis Four were consistent with those of Paykel and Prusoff (1973). Their study related the dimensions of neuroticism and extraversion, as measured by the Maudsley Personality Inventory, to the three dimensions of obsessive, hysterical and oral personality, as measured by the Lazare-Klerman Trait Scales and by an interview with a close relative of the subject. The subjects tested had obsessional personalities, but no obsessional symptoms. It was found that extraversion did not correlate significantly with either obsessive measure, and that neuroticism showed a significant negative correlation with both measures of obsessional personality. Therefore, findings relating introversion to obsessional personality may be expected to differ, depending upon whether one is dealing

with a normal population, including obsessive-compulsive personalities, or with those persons with obsessive symptoms, who are most likely to seek treatment.

The background variables indicated on Table 1 correlated significantly with some of the test scores. A correlation of .22, significant beyond the .05 level, resulted between year of birth and the Pt. Scale scores, indicating that the younger students experienced more obsessional symptoms. The correlation was not significant for the LOI scale, however, so that age cannot be said to account for the differences between the undergraduates and the graduates as discussed in Hypothesis One.

A majority of the graduates were only and first-born children, while the undergraduates were predominantly middle and last-born children. There were no significant relationships between birth order and obsessional inventory scores in the present study. In fact, in the graduate psychology group, 17 of 24 subjects were first and only children; yet, this group had the lowest obsessional scores of any group.

It seems to be a common thought that students who go into psychology do so in order to resolve their own problems. While this may be true at the undergraduate level, it certainly did not hold true for the present sample of psychology graduate students, either male or female.

It is obvious that there is much literature and research on the topic of the Obsessive Compulsive Disorder.

Yet there remains much confusion about the origin and the treatment of the illness. Because it is a disorder which causes much pain to the individual, some grief to those with whom he or she lives, and almost none to society, it is an illness which can cause much suffering before help is sought. Hopefully, research will continue to flourish on this topic, and as a result, the Obsessive Compulsive Disorder, which is rare at the present time, may become even more so in the future.

REFERENCES

- Adams, P. L. Family characteristics of obsessive children. American Journal of Psychiatry, 1972, 128(11), 1414-1417.
- Adams, P. L. Obsessive children. New York: Brunner/Majel, Inc., 1973.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders (3rd ed.). Washington, D.C.: Author, 1980.
- Beech, H. R. (Ed.). Obsessional states. London: Methuen & Co. Ltd., 1974.
- Beloff, H. The structure and origin of the anal character. Genetic Psychology Monographs, 1957, 55, 141-172.
- Carothers, J. E. A study of mental derangement in Africans, and an attempt to explain its peculiarities; more especially in relation to the African attitude to life. Psychiatry, 1948, 11, 47-86.
- Carr, A. T. Compulsive neurosis: A review of the literature. Psychological Bulletin, 1974, 81(5), 311-318.
- Cattell, R. B. Contact Personality Factor Test. Champaign: Institute for Personality and Ability Testing, 1954.
- Cooper, J. The Leyton Obsessional Inventory. Psychological Medicine, 1970, 1, 48-64.
- Coppen, A., Cowie, V., & Slater, E. Familial aspects of "neuroticism" and "extraversion." British Journal of Psychiatry, 1965, 111, 70-83.
- Costello, C. G. (Ed.). Symptoms of psychopathology, a handbook. New York: John Wiley & Sons, Inc., 1970.
- Dahlstrom, W. G., & Welsh, G. S. An MMPI handbook. Minneapolis: University of Minnesota Press, 1960.
- Eysenck, H. J. Dimensions of personality. London: Routledge & Kegan Paul Ltd., 1947.

- Eysenck, H. J. Hysterics and dysthymics as criterion groups in the study of introversion-extraversion: A reply. Journal of Abnormal and Social Psychology, 1958, 57, 250-252.
- Eysenck, H. J. Experiments in personality, Vol. II. London: Routledge & Kegan Paul, 1960.
- Eysenck, H. J. Fact and fiction in psychology. Harmondsworth, England: Penguin Books Ltd., 1965.
- Foulds, G. A. Personality and personal illness. London: Tavistock Publications Ltd., 1965.
- Freud, S. (1907) Collected papers, Vol. II. (J. Riviere, trans.). New York: Basic Books, Inc., 1959.
- Goodwin, D. W., Guze, S. B., & Robins, E. Follow-up studies in obsessional neurosis. Archives of General Psychiatry, 1969, 20(2), 182-187.
- Gorer, G. Themes in Japanese culture. Transactions of the New York Academy of Sciences, 1943, 5, 106-124.
- Gunn, R. L., & Manson, M. P. Western Personnel Tests. Los Angeles: Western Psychological Services, 1962.
- Hathaway, S. R., & McKinley, J. C. The Minnesota Multiphasic Personality Inventory. New York: The Psychological Corporation, 1943.
- Hays, P. Determination of the obsessional personality. American Journal of Psychiatry, 1972, 129(2), 217-219.
- Honigsmann, J. J. Culture and personality. New York: Harper & Row, 1967.
- Ingram, I. M. The obsessional personality and obsessional illness. American Journal of Psychiatry, 1961, 117, 1016-1019.
- Kayton, L., & Borge, G. F. Birth order and the obsessive-compulsive character. Archives of General Psychiatry, 1967, 17(6), 751-754.
- Kendell, R. E., & DiScipio, W. J. Obsessional symptoms and obsessional personality traits in patients with depressive illnesses. Psychological Medicine, 1970, 1, 65-72.

- Kline, P. Obsessional traits and emotional instability in a normal population. British Journal of Medical Psychology, 1967, 40, 153-157.
- Laughlin, H. R. The neuroses. Washington: Butterworths, 1967.
- Marks, I. M. Patterns of meaning in psychiatric patients. London: Oxford University Press, 1965.
- Michaels, J. J., & Porter, R. T. Psychiatric and social implications of contrasts between psychopathic personality and obsessive compulsive neurosis. Journal of Nervous and Mental Disease, 1949, 109, 122-132.
- Monroe, R. R. Obsessive behavior: Integration of psychoanalytic and other approaches. In S. Arieti (Ed.), American handbook of psychiatry, Vol. III (2nd ed.). New York: Basic Books, Inc., 1974.
- Orlansky, H. Infant care and personality. Psychological Bulletin, 1949, 46, 1-48.
- Paykel, E. S., & Prusoff, B. A. Relationships between personality dimensions: Neuroticism and extraversion against obsessive, hysterical and oral personality. British Journal of Social Clinical Psychology, 1973, 12, 309-318.
- Payne, R. W. Cognitive abnormalities. In H. J. Eysenck (Ed.), Handbook of abnormal psychology (2nd ed.). San Diego: Robert R. Knapp, 1973.
- Pollak, J. M. Obsessive-compulsive personality: A review. Psychological Bulletin, 1979, 86(2), 225-241.
- Pollitt, J. Natural history of obsessional states. British Medical Journal, 1957, 1, 194-201.
- Rado, S. Obsessive behavior. In S. Arieti (Ed.), American handbook of psychiatry, Vol. III (2nd ed.). New York: Basic Books, Inc., 1974.
- Rosenberg, C. M. Personality and obsessional neurosis. British Journal of Psychiatry, 1967, 113, 471-477.
- Salzman, L. The obsessive personality. New York: Science House, 1968.

Sandler, J., & Hazari, A. The "obsessional": On the psychological classification of obsessional character traits and symptoms. British Journal of Medical Psychology, 1960, 33, 113-122.

Schlesinger, V. J. Anal personality traits and occupational choice: A study of accountants, chemical engineers, and educational psychologists (Doctoral dissertation, University of Michigan, 1963). Dissertation Abstracts, 1964, 24(12), 5551-5552. (University Microfilms No. 64-6745)

Segal, S. J. A psychoanalytic analysis of personality factors in vocational choice. Journal of Counseling Psychology, 1961, 8(3), 202-210.

Templer, D. I. The obsessive-compulsive neurosis: Review of research findings. Comprehensive Psychiatry, 1972, 13(4), 375-383.

Willner, G. The role of anxiety in obsessive compulsive disorders. American Journal of Psychoanalysis, 1968, 28, 201-211.

Woodruff, R., & Pitts, F. N., Jr. Monozygotic twins with obsessional illness. American Journal of Psychiatry, 1964, 120, 1075-1080.

Woolley, L. F. Etiology, dynamics and genesis of psychasthenia. Psychiatric Quarterly, 1937, 11, 654-676.