

A SURVEY OF JOB SATISFACTION OF OCCUPATIONAL
THERAPISTS IN THE TEXAS AREA

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CHAPTER I

INTRODUCTION

Statement of the Problem

The cost of training a professional worker is high. For instance, in the training process of becoming an occupational therapist, an individual has to finish twelve years of primary and secondary education, four years of college education, one year of field work experience, and pass the certification examination for occupational therapist, registered. Generally speaking, most persons would need at least seventeen years of education before becoming registered occupational therapists. For the development of the profession, it is wise and realistic to keep the skilled individuals practicing.

The Data Line column of the American Occupational Therapy Association Newspaper (Feb. 1979) reported that one-fourth of the registered occupational therapists were not employed. The median age of registered occupational therapists continued to drop. It was 35 years 3 months in 1970 (Jantzen 1972), and 31 years 6 months in 1977 (O.T. Newspaper Feb. 1979). According to the Labor Department figure, the annual shortage of occupational therapists in

the work force was nearly fifty percent (O.T. Newspaper Apr. 1980). All the information mentioned above indicates that there are more and more young and inexperienced therapists in the profession. Where are the experienced therapists?

Occupational therapy is a female-dominant profession. Ninety-five percent of the total therapists were females (O.T. Newspaper Feb. 1979). Women's Bureau studies (1969) reported that there was a direct, positive relationship between the educational attainment of women and their labor force participation. Marriage was not necessarily detrimental to women's careers (Perry 1969; Gilligan 1976). Gilligan (1976) reported that lack of career mobility might cause the withdrawal. Is this one of the reasons for the withdrawal of the occupational therapist?

Since the 1930's, numerous researchers have been interested in workers' attitudes and have researched job satisfaction between workers' attitudes and working performance. Locke (1969) estimated that over 2,000 studies had been published on this topic. Pritchard and Peters (1974) reported that there were several approaches in studying job satisfaction, but a common variable underlay those approaches. That is the reward.

There are two kinds of rewards: extrinsic and intrinsic rewards. The extrinsic rewards refer to rewards

which are controlled and awarded by the organization such as pay and promotion. The intrinsic rewards refer to rewards which arise from the worker's own interactions with the job such as feelings of autonomy and feelings of accomplishment (Poter and Lawler 1967). It was reported that absenteeism might be related to lack of intrinsic satisfaction while turnover might be related to lack of extrinsic satisfaction (Pritchard and Peters 1974).

The present study is designed to investigate the employment status of occupational therapists, and to ascertain the relationship between the job satisfaction level and the employment status.

The purposes of this study were

1. to investigate the employment status of occupational therapists,
2. to evaluate the job satisfaction levels of occupational therapists,
3. to determine how occupational therapists feel about specific job facets.

Hypotheses

The null hypotheses tested in this study were listed as follows:

1. There is no difference in the level of job satisfaction in occupational therapy between therapists with

full-time employment and those with part-time employment as measured by the Minnesota Satisfaction Questionnaire.

2. There is no difference in the level of job satisfaction in occupational therapy between currently employed therapists and previously employed therapists, who were not working as occupational therapists at the time the survey was conducted, as measured by the Minnesota Satisfaction Questionnaire.

3. There is no difference in the level of job satisfaction in occupational therapy between therapists with less than two years' experience and those with more than two years' experience as measured by the Minnesota Satisfaction Questionnaire.

4. There is no correlation between the intrinsic and the extrinsic job satisfaction scale scores obtained by occupational therapists on the Minnesota Satisfaction Questionnaire.

Background and Significance of the Study

According to the Manpower Research 1973, the increasing need for better health has made health professions the fastest growing industry in the world. In the United States, the population employed in health professions increased from 2 million in 1960 to about 3.2 million in 1970. Despite the rapid growth in employment, there was

still a widening gap between demand and supply. The Public Health Service estimated that there will be a deficit of 93,000 medical allied health workers in 1980 (Pennell and Hoover 1970). The Bureau of Labor Statistics reported in May 1980 that there would be 2,500 openings anticipated annually for registered occupational therapists. There are 1,700 new therapists passing the certification examination each year. The figure represents an annual shortage of nearly fifty percent (O.T. Newspaper Apr. 1980).

Jantzen's (1973) national survey of registered occupational therapists in 1970 indicated that only 50 percent of female occupational therapists and 87.9 percent of male therapists were in the full-time labor force. There were 32.5 percent of the total female therapists and 4 percent of the total male therapists who were not employed. The O.T. Newspaper (Feb. 1979) reported that one-fourth of the total registered occupational therapists were not employed. All the data listed above pointed out that there was a demand for more therapists, but nearly half of the female therapists were not employed. Among the suppositions made about the current employment status of occupational therapists and the high drop-out rate of allied health professionals are low wages, poor working conditions, no occupational mobility (dead-end job), over qualified staff,

and lack of a respectable place on the health team (Light 1969; Perry 1969; Manpower Research Monograph 25; Jantzen 1972 no.2; Joiner and Blayney 1974; Broski and Cook 1978).

Since 1930, there have been a number of studies about workers' attitudes toward their jobs. Expressions of job dissatisfaction suggested by Sheppard (1967) include work stoppage, slowdowns, tardiness, absenteeism, arguments with superiors and fellow workers, and termination. Studies by Brayfield and Crockette (1955) and Roberts and Savage (1973) reported a consistent and positive correlation between job dissatisfaction and turnover. Some researchers did further analysis of this relationship and indicated that the effect of job dissatisfaction was an increase in the intention of quitting (Mobley, Honer, and Hollingsworth). Lawler and Porter (1967) and Peres (1967) reported that the relationship between job satisfaction and performance was related to each other indirectly, with reward or need as a mediating variable. If appropriate rewards were achieved according to one's performance, the worker felt satisfaction with his job and was highly motivated.

Most of the research about job satisfaction has been done in industrial settings. In the health field, there have been investigations on job satisfaction of nurses, medical dietitians, and medical technologists (French and Rezler 1976; Bobeng 1977; Stamps et al 1978).

A study of job satisfaction of allied health professionals (Broski and Cook 1978) showed that the job satisfaction scores of physical therapists, occupational therapists, medical dietitians, and medical technologists were all lower than the fiftieth percentile on national norms.

As rapid changes and developments occur in technology, laborsaving devices, social standards, and family planning, the number of women participating in the labor force increases (Gilligan 1976). Strong manpower demand for past, present, and future occupational therapy personnel has been reported in the Occupational Therapy Newspapers of July, August, and September 1979. Further study of the employment status and job satisfaction of occupational therapists seems in order.

Definitions of Terms

Occupational Therapy: Occupational therapy is the art and science of directing man's participation in selected tasks to restore, reinforce and enhance performance, facilitate learning of the skills and functions essential for adaptation and productivity, diminish or correct pathology, and to promote and maintain health (Hopkins and Smith 1978).

Occupational Therapist, Registered: One who has successfully completed all academic and field work

requirements of a program in occupational therapy accredited by the American Medical Association and passed the certification examination for occupational therapist, registered (American Occupational Therapy Association Handbook for Candidates 1980). In this study, the registered occupational therapist is referred to as the occupational therapist.

Full-time Occupational Therapist: Occupational therapist who works 40 hours a week or is designated as full-time by the job.

Part-time Occupational Therapist: Occupational therapist who works less than full time.

Job Satisfaction: The positive feelings or attitudinal responses within an individual that result from the work performed in an occupation.

Job Dissatisfaction: The negative feelings or attitudinal responses within an individual that result from the work performed in an occupation.

Intrinsic Factors: Job-related factors which concern the working content such as achievement, creativity, independence, and responsibility (see appendix A).

Extrinsic Factors: Job-related factors which concern the working environment such as advancement, company policies, compensation, and recognition (see appendix A).

Limitations of the Study

The study is limited to the registered occupational therapists whose names are listed on the 1980 mailing list of the American Journal of Occupational Therapy in the Texas area. This mailing list was supplied in May 1980 by the American Occupational Therapy Association.

Four weeks were allowed for the return of the questionnaire. Replies received after that time was not included in the respondent group.

Basic Assumptions

This study is based on the following assumptions:

1. The respondents will answer the questionnaire with sincerity and honesty.
2. The random sample in this study is representative of all occupational therapists in the Texas area.
3. The responses of occupational therapists on the Minnesota Satisfaction Questionnaire can reflect the attitudes of occupational therapists toward their work.

CHAPTER II

LITERATURE REVIEW

The purposes of this literature review were to present the information about the current demand and supply of occupational therapists in the labor force market, to discuss related studies and measurements of job satisfaction, and to outline the relationship between job satisfaction and manpower of occupational therapists. Accordingly, the chapter was subdivided into five sections: (1) Supply and demand of occupational therapists, (2) Employment status of occupational therapists, (3) Labor force participation of women workers and its influencing factors, (4) Studies of job satisfaction and its relationship with worker's performance, (5) Studies of job satisfaction in occupational therapy.

Supply and Demand of Occupational Therapists

The United States Department of Labor reported in 1973 that the increasing need for better health had made health professions the fastest growing industry in the world. The Public Health Service estimated that there would be a deficit of 93,000 medical allied health workers in 1980 (Pennell and Hoover 1970). Pennell and Hoover also

reported that, by 1975, the estimated increase for occupational therapy would be 731 percent according to professional judgements and 200 percent according to the Bureau of Labor Statistics projection.

In 1973, the Texas Hospital Association, the Texas Medical Foundation, and Regional Medical Programs of Texas administered a survey about manpower requirements, resources, and educations of allied health manpower in Texas. The results indicated that occupational therapy would be one of the fastest growing professions in the therapeutic services. The percent increase of full time equivalents in occupational therapy would be at least ten percent each year. Full time equivalents were evaluated on the basis that 2 part time persons equaled 1 full time person. There were 235 full time equivalents of the occupational therapist in 1970, and 391 in 1973. It was projected that there would be 736 full time equivalents of the occupational therapist in 1980 and 1175 in 1985. The suggested figure, 736 full time equivalents of the occupational therapist, was in accordance with the most recent total number of registered occupational therapists. According to the AOTA's list supplied in May 1980, there were 885 registered occupational therapists in the Texas area.

According to a survey of facilities participating in the Medicare Program directed by the U. S. Social Security Administration from 1972-1974, there were 6,257 hospitals in total. Twenty-two percent of the hospitals provided the service of occupational therapy.

In a 1975 study of rehabilitative services in long term care facilities administered by the U.S. Department of Health, Education, and Welfare, there were 283,912 patients in total. It was estimated that 99,369 patients, 35.0% of the total, needed the services of occupational therapy. Only 10,818 patients, 10.9%, had received such services; 89.1% more were in need of occupational therapy. It was further indicated by DHEW's National Nursing Home Survey in 1977 that only 5.9% of 1.3 million residents of nursing homes received occupational therapy services. Moreover, 23 percent of budgeted occupational therapist positions were vacant in the nursing homes.

With the passage of the Education of All Handicapped Children Act 1975, PL 94-142, the Bureau of Education for the Handicapped reported that hundreds of occupational therapy positions were available throughout the country (O.T. Newspaper Aug. 1979). The need for occupational therapist in the school system increased 50.0% between 1978 and 1979.

In a 1979 survey of state occupational therapy associations conducted by the American Occupational Therapy Association, it was reported that there were more jobs than available personnel in the local job placement services in 58% of the states (O.T. Newspaper May 1980). Some state-operated manpower programs found the same situation. For example, 35 out of 100 budgeted positions in the State Department of Health and Mental Hygiene were vacant in the state of Maryland in 1979. Information on the other 42% of the states was not available. The Bureau of Labor Statistics of the Department of Labor published projections for growth for different occupations in May 1980 and projected that there would be an average of 2,500 openings for occupational therapists annually over the next ten years. These vacancies would consist of 1,300 new openings and 1,200 replacement openings. At the present time, there are about 1,900 new graduates each year. Among these graduates, about 1,700 persons would be expected to pass the certification examination and find immediate employment. According to the findings listed above, there would be an annual shortage of nearly 50% (O.T. Newspaper Apr., and May 1980).

In summary, occupational therapy was frequently reported as one of the fast growing professions in the U. S. since 1970. The supply does not meet demands for occupational therapy services.

Employment Status of Occupational Therapists

In 1968, Flint and Spensley administered a career pattern survey to all employed registered therapists who were working or had worked as occupational therapists in the state of Minnesota since 1960. Within the population of 308 therapists, 242 (78.0%) therapists responded. Ninety six percent of the sample were females. The median age was 32.0 years. Of all respondents, 49 percent were presently employed as occupational therapists, 5 percent were in other fields and 46 percent had left the work force completely. Among those who were not employed at that time, 19 (18.0%) indicated that they intended to return to work within the next five years. Sixty two persons (57.0%) replied that they would like to return to occupational therapy "someday", but not within the next five years. Eighteen persons (17.0%) did not have any plan of working again and nine (8.0%) intended to work in another occupation. When asked "If you could easily enter another profession, would you do so?", thirty percent of the total sample answered yes. The authors recommended that further study be done concerning how to improve the retention rate and relieve the pressure of personnel shortage.

In 1968, Poole and Kassalow administered a manpower survey to both registered occupational therapists and certified occupational therapy assistants in the state of Wisconsin. The response rate was 84.3%. Among those 349 registered occupational therapists who returned the questionnaires, 172 (49.0%) were employed and 177 (51.0%) unemployed. Of the unemployed therapists, 106 (59.9%) expressed interests in returning to the labor market, 94 for part time and 12 for full time employment. Most of them (70.8%) were not sure about the date of reemployment.

In 1970, Jantzen's National Survey of active registered members of the American Occupational Therapy Association reported that 6,436 persons, 80.0%, responded to the questionnaire (Jantzen Jan.-Feb. 1972). Of these, 6,185 (96.1%) were females and 251 (3.9%) were males. The analysis of employment status of female registered therapists indicated that only 50.1% of them were employed full time; 13.7% of them were employed part time and 32.5% unemployed. The median age was 35 years 3 months. The analysis of employment status of male registered therapists pointed out that 87.9% of them were full time employed; 1.6% of them were part time employed and 4.0% unemployed (Jantzen Oct. 1973). The median age was 39 years 8 months.

In 1973, the American Occupational Therapy Association's member data survey indicated that there were

8,664 registered occupational therapists (Acquaviva 1975). Female therapists comprised 96.0% of them. The median age for female therapists was 32 years 6 months. Male therapists comprised 4.0% of the total. The median age for male therapists was 34 years 5 months.

In 1977, the American Occupational Therapy Association conducted another member data survey (O.T. Newspaper Feb. 1979). Sixty percent of all registered occupational therapists of the association responded to the survey. The results pointed out that female therapists comprised 95.0% of the population. The median age for the registered occupational therapists was 31.5 years. About three-quarters of the registered occupational therapists and occupational therapy assistants were employed either on a full time or part time basis.

In summary, the percentage of employed occupational therapists did increase from 1968 to 1977. The median age for the employed therapist population continued to drop. A majority of the unemployed therapists did not have definite plans to return to employment as occupational therapists.

Labor Force Participation of Women Workers and Its Influencing Factors

In 1975, the Women's Bureau reported the rates of women 16 years of age and over in the labor force from 1890

to 1974. This rate was 18.2% in June 1890, 23.6% in April 1930, 33.0% in April 1950, 43.2% in April 1970, and 45.0% in April 1974. According to the report from the Women's Bureau (1968), there were 62,922,000 women 20 years of age and over in the U.S. population in 1968. Among the women of working age, 42 percent were working or seeking work. In 1970, Oppenheimer (1973) indicated that 50% of American women between age 18 years and 64 years were employed. The U.S. Department of Labor, Bureau of Labor Statistics (1979) also reported that 50.1% of all women of working age were in the labor force in 1978.

The median age of women workers shifted from 26 years in 1900 to 32 years in 1940, 34 years in 1945, and 41 years in 1960 (Women's Bureau 1975). The median age dropped to 40 years in 1968 (Women's Bureau).

The Women's Bureau (1968, 1975) stated that a direct, positive relationship existed between the educational attainment of women and their labor force participation. The more education women had received, the greater the possibility that they would participate in paid employment. The percentage of paid employment for all women of working age was 42.0% in 1968. Fifty-eight percent of the 4 million women who had earned a college degree held a paid job. In contrast to 54% of those women with bachelor's degrees only, 71% of those with 5 years or

more of college were employed. In March 1974, nearly 70% of women who had completed 5 years of college or more and 61% of those with 4 years of college were in the labor force (Women's Bureau 1975). The study also reported that 50% of the women who were only high school graduates were in the labor force. For women high school dropouts, the rate of employment was about 40%, and it was 25% for those with 8 years of schooling (Women's Bureau 1975). The findings of Jantzen's national survey of occupational therapists supported this relationship between educational attainment and employment status (Jantzen 1972). There were 87.02% of occupational therapists with graduate degrees employed while only 62.82% of therapists with bachelor's degrees were employed.

As to the relationship between marital status and employment, the percentage of married women workers increased from 30% of all women workers in 1940, to 60% in 1968 (Women's Bureau 1968), and 62.3% in 1975 (Women's Bureau 1975). Although the participation rate of married women workers increased, marriage and child-rearing were still thought to be obstacles in women's careers (Women's Bureau 1975). In Flint and Spensley's study (1968) of Minnesota occupational therapists, the findings showed that the unemployment rate was lower in women with older children at home. Among employed therapists, 22 %

expected to discontinue working in the foreseeable future. The main reason for resigning given by 80% of those persons was "family." Mathewson (1975) reviewed and examined the socialization process of women to their roles and the lessons female children were taught about their roles in the adult world in relation to men. It was reported that women were still struggling and felt confused between the feminine roles and modern roles. The feminine role had such attributes as an appropriate attitude toward men, family, work, love, and a set of personality traits such as nondominant, emotional, and sympathetic. The modern role demand virtues, behaviors and attitudes of the woman much the same as that of the man of corresponding age. In the same study, Mathewson considered occupational therapy as a female-dominant profession and discussed the reason why this profession was viewed as a marginal profession by Pavalko (1971). It was decided that the effect of the feminine role makes occupational therapists exhibit deficiencies in four dimensions: motivation, autonomy, commitment, and sense of community.

Other researchers objected to this inference. Perry (1969) addressed the 65th Annual Congress on Medical Education about the need for career mobility of allied health professionals:

We must not accept that the high percentage of women with marriage and the family on their minds is always the motivating factors for increasing incidence of occupational "drop-outs" from health occupations, transfer from job to job in clinical facilities, and considerable dissatisfaction with delegated responsibilities. When a gate is slammed shut in your face, you either have to attempt to open it, climb over or under, find another means of entry, or just withdraw from the situation. In far too many instances, a closed door in a health job has meant a permanent loss to the health manpower pool. (p. 108)

Joiner and Blayney (1974) also reported that "dead end" jobs led the employee to be depressed and dissatisfied. Lack of career mobility might also lead to a high rate of turnover, an increase in the cost of training and severe problems of personnel shortage. The Women's Bureau (1975) reported that marital status would not change the positive relationship that existed between educational attainment and labor force participation. The highest labor force participation rates were for women with 4 years of college or more, and the lowest rates were for those with 8 or fewer years of schooling whether the women were single, married, widowed, divorced, or separated. Family responsibilities were also excluded as a possible major cause of turnover in the nursing profession, a female-dominant profession, by Brief's comparative analysis (1976). He examined the activity of female nurses in their profession versus that of female professionals in general and found that the former were less active in their

profession than the latter. From this he concluded that the high rate of turnover among nurses was not due to family responsibilities unless female nurses were different from other professional women in psychological aspects and demographical aspects. The main reason for turnover as noted by Brief was lack of job satisfaction.

Studies of Job Satisfaction and Its Relationship with Worker's Performance

As reported by many researchers, interest in worker's attitudes, especially emphasized in the study of job satisfaction, was a recent development in the behavioral sciences (Pritchard and Peters 1974; Wanous 1974). The Hawthorne studies (Roethlisberger and Dickson 1936) and the Hoppock monograph on job satisfaction (Hoppock 1935) were regarded to be the first studies in this area. Subsequently, research has been done to explore the relationship between job satisfaction and job performance, job tenure (Vroom 1964), absenteeism, accidents, grievances, illness (Brayfield and Crockett 1955), and even life expectancies (Madigan 1962). Among these directions for investigation, the hypothesized connection between employee satisfaction and job performance was the one that attracted the greatest research and theoretical interest.

Three major points of view were identified in the

review and examination of theoretical propositions concerning the relationship between satisfaction and performance (Schwab and Cummings 1969-1970; Steers and Porters 1975). The first proposition was that satisfaction would lead to performance. A satisfied worker should be a good worker. This was a popularly accepted interpretation of the worker's motivation to work. The most prominent theorist, Herzberg (1959), is the representative of this view. Job variables which influenced job satisfaction were divided into two groups, hygiene factors and motivators. The factors included in the former were supervision, physical working conditions, regular salary and benefits, company policies, etc. They were regarded as the potential sources for job dissatisfaction, but not as sources of positive work attitudes. Motivators like recognition, increasing responsibilities, and opportunities for professional growth, were considered to have a high, positive correlation with the worker's performance. There were no adequate studies and analyses to support the proposed theory (Schwab, Devitt, and Cummings 1971; Gordon, Pryer, and Harris 1974). Schwab, Devitt, and Cummings (1971) reported that the dissatisfiers were as closely associated with variations in performance effects as were the satisfiers.

As high morale was no longer considered to be a prerequisite for high productivity, the second proposition was identified (Schwab and Cummings 1970). It reflected that the nature of the relationship between morale and productivity was open to serious questioning. Many variables were examined and described to exist in the satisfaction-performance continuum. Examples are the expectance theory by Brayfield and Crockett (1955), Triandis' pressure theory (1959), and Simon and March's theory (1958). The relationship between satisfaction and performance was considered to be neither direct nor particularly strong.

The third proposition was performance-satisfaction theory (Lawler and Porter 1967). The main point of this theory was that good performance might lead to rewards which in turn led to satisfaction. The relationship was mediated only by intrinsic and extrinsic rewards.

In 1970, Slocum collected two kinds of data from 200 middle and lower level managers employed by a steel mill in Pennsylvania in order to analyze the relationship between job satisfaction and performance. Data were collected from the Job Performance Scale and the Porter Questionnaire. The results showed that overall job satisfaction was significantly correlated with performance.

Higher order needs in Maslow's need hierarchy, such as autonomy and self-actualization, appeared to be more closely associated with performance than the lower order needs, such as security and social relationship.

Siegel and Bowen (1971) conducted a longitudinal study to investigate both concurrent and predictive relationships between job satisfaction and performance. Eighty-six Master of Business Administration students were selected to be subjects. The researchers found strong statistical support for performance as the cause of satisfaction.

Cherrington, Reitz, and Scott (1971) administered an experiment in which subjects were rewarded either randomly, appropriately, or inappropriately for their performance. The results showed that the satisfaction-performance correlation was zero if subjects were randomly rewarded. Positive correlation was found if subjects received contingent rewards appropriate for their performance. Negative correlation was found if subjects got contingent rewards inappropriate for their performance.

Wanous (1974) gathered both job satisfaction and performance data from 80 newly hired female telephone operators after one month's and three months' work experience respectively. The overall relationship between satisfaction and performance was found to be slightly

positive. With job satisfaction split into intrinsic and extrinsic components, the data suggested that performance caused intrinsic satisfaction and that extrinsic satisfaction caused performance.

Taylor and Weiss (1972) conducted a longitudinal study to predict individual job termination from measured job satisfaction and biographical data. The Minnesota Job Satisfaction Questionnaire was used. The result confirmed the expected relationship between job satisfaction and termination. A significant difference between "stayers" and "leavers" was noted in the intrinsic satisfaction scales. By using the discriminant function information with the Minnesota Satisfaction Questionnaire data, the organization could make a prediction that individuals with scores above -1.49 would leave. They had an accuracy rate of 64% for the group studied.

Pritchard and Peters (1974) explored the relationship among job duties, interest in performing job duties, and job satisfaction which included both intrinsic and extrinsic job satisfaction. They proposed that the actual task behaviors a person engaged in were related more to intrinsic satisfaction while organizational rewards were related more to extrinsic satisfaction. They used the Position Analysis Questionnaire to measure job duties, the Job Activity Performance Questionnaire to measure job

interests, and the Minnesota Satisfaction Questionnaire to measure job satisfaction. The findings showed that satisfaction was related to actual job duties and that job duties were more highly related to intrinsic satisfaction than to extrinsic satisfaction. The authors speculated from the findings that absenteeism might be more highly related to intrinsic dissatisfaction while turnover might be more related to extrinsic dissatisfaction.

Two methods to evaluate job satisfaction were reported by Woolf (1970) and Roberts and Savage (1973). One was direct measurement which asked employees in a straightforward way how satisfied they were. For instance, they were asked to check on a five point scale to show the degree to which they were satisfied or dissatisfied. The other method was an indirect measurement which evaluated feelings or behaviors such as absenteeism, grievances, increased breakages, or productivity. A direct relationship between such indicators and job satisfaction was not well established (Woolf 1970; Roberts and Savage 1973).

Robert and Savage suggested that the use of a questionnaire was the most accessible and appropriate way to analyze job satisfaction of an employee. Five instruments were reported to be the major instruments among all the indirect job satisfaction measures. They were (1) the Job Description Index--a job facet instrument (Hulin

1968, and 1969), (2) the Brayfield-Rothe Index--an explicit measure of overall job satisfaction (Brayfield and Rothe 1951), (3) the General Motors Faces Scales--a projective measure of overall job satisfaction (Kunin 1955), (4) the Porter Instrument--a measure of an employee's need structure (Porter 1962), and (5) the Minnesota Satisfaction Questionnaire--a measure of work adjustment (Weiss et al. 1967). The Job Description Index and the Minnesota Satisfaction Questionnaire were the most popularly used ones and were recommended as the better methods to measure job satisfaction (Pritchard and Peters 1974; Wanous 1974; Gillet and Schwab 1975; Buros 1978). Guin commented that the Minnesota Satisfaction Questionnaire would hold up well in comparison with and obtain more information than the Job Description Index (Buros 1978).

In summary, a positive relationship between performance and job satisfaction was found by many researchers. A causal relationship between them was not clearly defined. The Minnesota Satisfaction Questionnaire was the evaluation tool recommended most frequently. It was also the one described as promising (Buros 1978).

Studies of Job Satisfaction in
Occupational Therapy

The relationship between job satisfaction and performance of employees has been widely studied in factory or assembly work. Rarely has research been done on job satisfaction or occupational needs of the service-oriented professionals (Stamps et al 1978). As job dissatisfaction among the service-oriented professionals may adversely affect other humans, the understanding of employee needs is critical. For instance, in hospitals, job satisfaction will influence the levels of performance leading to the quality of patient care (Weaver and Holmes 1979). There are few studies about the occupational needs and job satisfaction levels of occupational therapists.

In Flint and Spensley's (1968) survey of career patterns of occupational therapists, they suggested that the retention of occupational therapists might be a more pressing problem than the recruitment of occupational therapists. Further studies were recommended by them in order to find contributing factors to the poor retention rate.

In 1969, similar topics were brought into discussion in the Annual Congress on Medical Education. One topic was development and growth of new allied health fields (Light 1969). Another was career mobility in allied health

education (Perry 1969). Light mentioned that job analysis of services and role identification were important to the growth and development of allied health professionals. Geographical mobility, occupational mobility, salary, a respectable place on the health team, and the flexibility necessary for the adjustment to new demands were five important elements which should be considered in the planning of a curriculum of training program in order to prevent job dissatisfaction. Perry (1969) advocated that a dead end job would be one of the main reasons for job dissatisfaction and withdrawal of the allied health employee.

In 1970, Biers and Murphy were concerned about the manpower of occupational therapy. They conducted a survey to secure the baseline data for projecting needs of the profession. They sent out a structured questionnaire to all active and inactive occupational therapists in the state of Kansas. They also collected sociodemographic data from inactive therapists in order to identify possible characteristics which led to their inactive status. Of 85 active therapists, 46 (54%) responded to the questionnaire. In the group of 56 inactive therapists, 15 (27%) responded. The findings indicated that continuing education was regarded as important for upgrading the quality of professional performance but was not perceived as important

in increasing the quantity of manpower in the profession. From sociodemographic data, role ambiguity was reported to be the greatest deterrent to job satisfaction by those inactive therapists according to their previous working experience.

Broski and Cook (1978) noticed that more and more young and ambitious people were admitted into those allied health professions which were described as having limited scopes of function and limited opportunities for upward mobility. The Job Description Index was used to investigate how allied health professionals felt about their jobs. Four allied health professional groups who graduated from Ohio State University were examined. They included (1) medical dietitians, (2) physical therapists, (3) occupational therapists, and (4) medical technologists. The response rate was 79.6% (732 out of 920). The results indicated that job satisfaction levels for each group were all lower than the fiftieth percentile when compared to subjects with similar attainment of educational levels in the norm group. Percentile scores for the scales of work, promotion, and pay of each group were also lower than those for coworkers and supervision. This result supported the proposition that opportunities for upward mobility were limited in allied health professionals.

In summary, studies about the needs of occupational therapists and their attitudes toward their work were seldom reported. The need for such study was stressed.

CHAPTER III

METHODOLOGY

This study consisted of a descriptive, non-experimental survey. The purposes were to investigate the employment status of occupational therapists, to evaluate their job satisfaction levels, and to determine how they feel about specific job facets.

Subjects

This study was carried out in the Texas area. Using a random number table (Leedy 1978), one hundred registered occupational therapists were chosen from 885 registered occupational therapists whose names and addresses were on the 1980 mailing list of the American Journal of Occupational Therapy which was supplied in May 1980 by the American Occupational Therapy Association. One personal data sheet and one long form of the Minnesota Satisfaction Questionnaire, 1967 Revision, devised by Weiss, Dawis, England, and Lofquist (1967), were mailed with a cover letter (see appendix B) to each subject. The cover letter explained the purposes of this study and carried the following statements as required by the Human Research Committee of the Texas Woman's University:

1. No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.

2. I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.

Instruments

Two instruments were used in this study. One was a personal data sheet (see appendix C) and the other was the revised long form of the Minnesota Satisfaction Questionnaire (see appendix D). The personal data sheet was devised by the author to gather demographic information which was related to the purposes of this study. The revised long form of the Minnesota Satisfaction Questionnaire was used to evaluate the job satisfaction levels of occupational therapists. Permission to use the questionnaire received from the Work Adjustment Project, University of Minnesota (see appendix E).

The Minnesota Satisfaction Questionnaire was one of the products of the Work Adjustment Project Studies at the Industrial Relations Center, University of Minnesota (Weiss et al. 1967). The conceptual framework for this questionnaire was entitled the Theory of Work Adjustment (Dawis 1968). The theory proposed that job satisfaction was

a function of the correspondence between the individual's vocational needs and the reinforcement in the working environment (see figure 1).

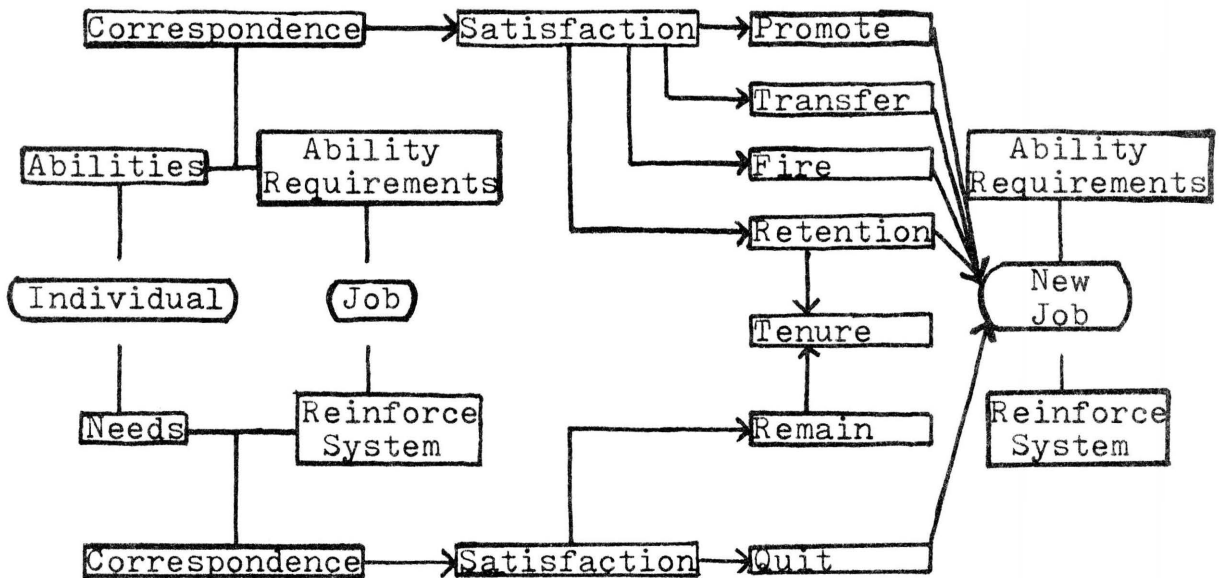


Fig. 1. A Theory of Work Adjustment

(Dawis et al. 1968, p. 15)

The Minnesota Satisfaction Questionnaire has one long form of the questionnaire and one short form of the questionnaire. The long form of the Minnesota Satisfaction Questionnaire, 1967 Revision, was used in this study because it was highly recommended by the authors to supply more information and to avoid the ceiling effect in scoring (Weiss 1967). The questionnaire consists of 20 scales (see appendix A). Each Scale consists of 5 items. The items appear in blocks of 20 which means items of a given scale

will appear at 20-item intervals. It is a self-administering questionnaire. Directions for the respondent appear on the first page of the questionnaire and the instructions are also repeated at the top of each page. There is no time limit for the questionnaire, but respondents are encouraged to answer the question rapidly. The average time for completion is 15 to 20 minutes. The questionnaire is easy to read. It requires fifth grade reading level. Response choices of the Minnesota Satisfaction Questionnaire are weighed in the following manner:

Response Choice	Weight Scoring
not satisfied	1
slightly satisfied	2
satisfied	3
very satisfied	4
extremely satisfied	5

Thus, responses are scored 1 through 5 proceeding from left to right in the answer space.

The Minnesota Satisfaction Questionnaire provides 4 kinds of scores, the general satisfaction score, scale scores, an intrinsic satisfaction score, and an extrinsic satisfaction score. The score used to indicate the general satisfaction of each individual is the sum of the responses to the following items: 24, 25, 28, 30, 35, 43, 51, 61,

66, 69, 72, 74, 77, 82, 93, 96, 98, 99, and 100. Scale scores for each individual are determined by summing the weights for the responses chosen for the items in each scale. The division of intrinsic and extrinsic satisfaction scores are the results of factor analysis done on the questionnaire (Weiss 1967). The intrinsic satisfaction score includes scale scores for Ability Utilization, Achievement, Activity, Authority, Creativity, Independence, Moral Values, Responsibilities, Security, Social Service, Social Status, and Variety. The extrinsic satisfaction score includes scale scores for Advancement, Company Policies and Practices, Compensation, Recognition, Supervision-human Relations, and Supervision-technical (see appendix A).

No data have been published concerning the validity and reliability of the long form Minnesota Satisfaction Questionnaire, 1967 Revision (Buros 1978). Data on reliability of the original long form, which differs only in the response options, are quite satisfactory (Weiss 1967). Regarding the internal consistency, Hoyt reliability coefficients were compared for 27 occupational groups for all 20 scales and general job satisfaction. Of the 567 coefficients, 83% were .80 or higher and only 2.5% were lower than .70. The stability of the Minnesota Satisfaction Questionnaire was determined by retesting

students and employed persons at one-week and one-year intervals respectively. For the one-week period, reliability coefficients ranged from .66 to .91. One-year retest correlations ranged from .35 to .71. Canonical Correlation Analysis was also performed on the retest data and indicated that both the one-week and one-year coefficients (.97 and .89 respectively) were significant beyond the .001 level. Regarding validity, the evidence is mainly in the form of construct validity resulting from using the Minnesota Satisfaction Questionnaire to test various predictions from the Theory of Work Adjustment. The findings indicated good construct validity. For instance, individuals who had high need levels which were reinforced by their job situations were identified as having higher levels of satisfaction than did a high-need-low-reinforcement group. The Minnesota Satisfaction Questionnaire was also purported to discriminate between occupational groups of varying social status levels and between disabled and nondisabled groups (Weiss 1967).

Procedures for Collecting Data

The questionnaire, a personal data sheet, a cover letter, and a stamped envelope were sent by mail to each subject. The subject was asked to return the personal data sheet and questionnaire within 7 days. The information

gathered was anonymous and confidential. A post card was included to allow the subject to request a summary report when the survey was finished (see appendix F). The subject was asked to mail back the post card separately in order to preserve anonymity.

After 10 days, a follow-up post card was mailed to each subject (see appendix G). It was used to remind the subject to return the questionnaire and the personal data sheet if they had not already done so. Four weeks were allowed for the return of the questionnaire. Replies received after that time was not included in the respondent group.

Procedures for Analyzing Data

Procedures for analyzing the data were described as follows:

1. The information from the personal data sheet was compiled into frequency distributions for the purpose of classification and reported as percentages.

2. NGROUP and REGRES, two of the interactive statistical programs for the DEC system-20, were used to do the statistical analyses of the data at the Computer Center of Texas Woman's University. NGROUP program applies the t test and REGRES calculates a correlation coefficient.

3. The required level of statistical significance was set at .05.

To test hypothesis one, scores were grouped according to the classification of full-time employed therapist (FULL) and part-time employed therapist (PART). There were scores of the general scale (GENERAL), scores of the intrinsic scale (INTRINSIC), and scores of the extrinsic scale (EXTRINSIC). The Student's t tests were used to compare the scale scores for the FULL and PART groups (Ary and Jacobs 1976). The Point-biserial correlation between the scores of these two groups was applied for each above scale (Ary and Jacobs 1976; Bruning and Kintz 1977; Guilford and Fruchter 1978).

To test the 2nd hypothesis, the same scale scores were calculated for currently employed therapists (CURRENT) and previously employed therapists (PREVIOUS), who were not working as occupational therapists at the time the survey was conducted. The Student's t tests were used to compare the scale scores for the CURRENT and PREVIOUS groups (Ary and Jacobs 1976). The Point-biserial correlation was applied to evaluate the relationship between the scores of these two groups for each above scale (Ary and Jacobs 1976; Bruning and Kintz 1977; Guilford and Fruchter 1978).

Scores of GENERAL, INTRINSIC, and EXTRINSIC were used again to test the 3rd hypothesis. The groups to be compared consisted of occupational therapists with less

than 2 years' experience (INEXPERIENCED) and occupational therapists with more than 2 years' experience (EXPERIENCED). The Student's t tests were used to compare the scale scores of these two groups (Ary and Jacobs 1976). The Point-biserial correlation was applied to evaluate the relationship between the scores of these two groups for each above scale (Ary and Jacobs 1976; Bruning and Kintz 1977; Guilford and Fruchter 1978).

To test the 4th hypothesis, the INTRINSIC and the EXTRINSIC score were calculated for each occupational therapist. The Pearson product-moment correlation was applied to examine the relationship between them for the total group of subjects (Guilford and Fruchter 1978).

CHAPTER IV

RESULTS

This chapter includes the results of this study. It is subdivided into 4 sections: (1) descriptions of the respondents, (2) analyses and interpretations of the level of job satisfaction in the occupational therapist by employment status, (3) analyses and interpretations of the level of job satisfaction in the occupational therapist by years of experience, (4) analyses and interpretations of the relationship between intrinsic and extrinsic job satisfaction in occupational therapists.

Descriptions of the Respondents

The questionnaire was mailed to 100 subjects out of 885 registered occupational therapists in the Texas area. As one questionnaire was returned by the post office, the sample size was reduced to 99. Sixty one subjects responded to the survey. The response rate was 61.6%. Because the list provided no other information besides name, address, and classified status such as student, registered occupational therapist, registered occupational therapy assistant, and membership in the American Occupational Therapy Association, there was no way to identify the age

and sex.

Among 61 respondents, there were 58 (95.1%) female therapists and 3 (4.9%) male therapists. The age range was from 22 to 60 years (see table 1). The median age was 30.0 years and the mean age was 33.3 years.

TABLE 1
FREQUENCY DISTRIBUTIONS OF REGISTERED
OCCUPATIONAL THERAPISTS BY AGE

Age	Frequency	Percentage
22-26	12	19.7
27-31	25	41.0
32-36	6	9.8
37-41	4	6.6
42-46	3	4.9
47-51	4	6.6
52-56	5	8.2
57-61	1	1.6
Unknown	1	1.6
Total	61	100.0

The years of experience ranged from 0 to 38 years (see table 2). The mean experience by years was 8.1;

the median years of experience was 5.0.

TABLE 2
FREQUENCY DISTRIBUTIONS OF REGISTERED OCCUPATIONAL
THERAPISTS BY YEARS OF EXPERIENCE

Number of Years	Frequency	Percentage
0	1	1.6
1-5	31	50.8
6-10	13	21.3
11-15	4	6.6
16-20	1	1.6
21-25	5	8.2
26-30	2	3.3
31	2	3.3
Unknown	2	3.3
Total	61	100.0

Marital status is described in table 3. There were 34 married therapists, 19 single therapists, 6 divorced therapists, 1 widowed therapist, and 1 unknown.

TABLE 3
FREQUENCY DISTRIBUTIONS OF REGISTERED OCCUPATIONAL
THERAPISTS BY MARITAL STATUS

Marital Status	Frequency	Percentage
Married	34	55.7
Single	19	31.1
Divorced	6	9.8
Widowed	1	1.6
Unknown	1	1.6
Total	61	99.8*

* Percentage does not add to 100 because of rounding.

Employment status is presented in table 4. There were 42 full-time employed therapists, 5 part-time employed therapists, 4 therapists employed in other fields, 9 therapists unemployed, and 1 therapist retired.

TABLE 4

FREQUENCY DISTRIBUTIONS OF REGISTERED OCCUPATIONAL
THERAPISTS BY EMPLOYMENT STATUS

Employment	Frequency	Percentage
Full-time	42	68.8
Part-time	5	8.2
Other job	4	6.6
Unemployed	9	14.8
Retired	1	1.6
Total	61	100.0

The educational level is described in table 5. Of the respondents, three had diplomas only. Terminal degrees for the remainder were 40 therapists with bachelor's degrees, 7 with entry level master's degrees, 7 with advanced master's degrees, 2 with doctoral degrees, and 2 unknown.

TABLE 5

FREQUENCY DISTRIBUTIONS OF REGISTERED OCCUPATIONAL
THERAPISTS BY EDUCATIONAL STATUS

Education	Frequency	Percentage
Diploma	3	4.9
Bachelor	40	65.6
Entry-level Master	7	11.5
Advanced Master	7	11.5
Doctor	2	3.3
Unknown	2	3.3
Total	61	100.1*

* Percentage does not add to 100 because of rounding.

The mean and median scores of each scale for registered occupational therapists are given in table 6. Each scale score is classified as contributing to the intrinsic or extrinsic scale.

TABLE 6

MEAN AND MEDIAN SCORES OF EACH SCALE FOR ALL
REGISTERED OCCUPATIONAL THERAPISTS

Scale	Classification	Mean	Median
Social Service	I	19.76	20.00
Creativity	I	19.59	20.00
Moral Values	I	20.09	21.00
Independence	I	18.58	19.00
Variety	I	18.47	19.00
Authority	I	17.26	17.00
Ability Utilization	I	18.43	20.00
Social Status	I	16.04	15.00
Company Policies and Practices	E	14.09	13.00
Supervision-Human Relations	E	15.50	15.00
Security	I	17.36	17.00
Compensation	E	14.63	15.00
Working Conditions	/	15.70	15.00
Advancement	E	13.79	13.00
Supervision- Technical	E	15.25	15.00
Co-workers	/	17.98	19.00
Responsibility	I	18.96	20.00
Recognition	E	15.70	16.00
Achievement	I	18.70	19.00
Activity	I	18.64	19.00

Analyses and Interpretations of Job Satisfaction
in Occupational Therapists by
Different Employment Status

Because six respondents returned the personal data sheet only, the sample size for analyzing the job satisfaction scores was reduced to 55. Raw scores for each respondent are available in appendix H. The results of data analyses would be further summarized according to hypotheses. As unequal group size was noticed while dividing therapists into subgroups according to their employment status, the Mann-Whitney U test was used instead of the Student's t test in computing the data (Guilford and Fruchter 1978).

Hypothesis I: Results of the Mann-Whitney U test supported the null hypothesis that there was no difference in the level of extrinsic job satisfaction between the FULL and PART group (see table 7). The result of the Point-Biserial Spearman rank correlation test also indicated that there was no correlation between the FULL and PART group in the level of extrinsic job satisfaction. As to the level of general job satisfaction and the level of intrinsic job satisfaction, the null hypothesis was supported by the results of the Mann-Whitney U test. But the results of the Point-biserial Spearman rank correlation test indicated that the PART group had higher levels of

general job satisfaction and intrinsic job satisfaction than the FULL group had.

For the extrinsic job factors, though the Spearman rho did not reach the significant level ($p = .067$), there was a tendency for the PART group to be less satisfied with them than the FULL group. The significant level of Spearman rho for general job satisfaction between these two groups was $p < .012$. The significant level of Spearman rho for intrinsic job satisfaction between these two groups was $p < .012$.

TABLE 7

MANN-WHITNEY U TEST AND POINT-BISERIAL SPEARMAN
RANK CORRELATION FOR THE COMPARISON OF
JOB SATISFACTION BETWEEN FULL AND PART

Scale	Mean		U	Rho
	FULL (N=42)	PART (N=5)		
GENERAL	69.05	73.90	121.50 or 88.50	.335**
INTRINSIC	18.24	19.82	127.50 or 82.50	.362**
EXTRINSIC	14.96	14.60	113.50 or 96.50	-.269*

$\alpha = .05$, * $p < .067$, ** $p < .05$

Hypothesis II: The null hypothesis that there was no difference in the level of job satisfaction on all three scales between the CURRENT and PREVIOUS group was supported by the result of the Mann-Whitney U test (see table 8). The CURRENT group had significantly lower levels of general job satisfaction and intrinsic job satisfaction than the PREVIOUS group as indicated by the results of the Point-biserial Spearman rho. As to the extrinsic job satisfaction, a significantly negative correlation between the scores of the 2 groups was identified. The CURRENT group tended to have a higher level of extrinsic job satisfaction than the PREVIOUS group.

TABLE 8

MANN-WHITNEY U TEST AND POINT-BISERIAL SPEARMAN
RANK CORRELATION FOR THE COMPARISON OF JOB
SATISFACTION BETWEEN CURRENT AND PREVIOUS

Scale	Mean		U	Rho
	CURRENT(N=47)	PREVIOUS(N=8)		
GENERAL	69.57	70.88	198.50 177.50 ^{or}	.287*
INTRINSIC	18.41	18.92	211.00 165.00 ^{or}	.313*
EXTRINSIC	14.92	14.89	194.00 182.00 ^{or}	-.277*

Analyses and Interpretations of Levels of Job Satisfaction by Different Years of Experience

Hypothesis III: The null hypothesis was supported by the result of the Mann-Whitney U test that there was no difference in the level of job satisfaction on all three scales between the EXPERIENCED and INEXPERIENCED groups (see table 9). The result of the Point-biserial Spearman correlation test indicated that the EXPERIENCED group had a significantly higher level of job satisfaction on all three scales than the INEXPERIENCED group did.

TABLE 9

MANN-WHITNEY U TEST AND POINT-BISERIAL SPEARMAN RANK CORRELATION FOR THE COMPARISON OF JOB SATISFACTION BETWEEN EXPERIENCED AND INEXPERIENCED

Scale	Mean		U	Rho
	EXPE- RIENCED (N=40)	INEXPE- RIENCED (N=15)		
GENERAL	70.77	67.07	255.00 345.00 ^{or}	.260*
INTRINSIC	18.75	17.79	248.00 352.00 ^{or}	.290**
EXTRINSIC	15.30	13.89	250.50 349.50 ^{or}	.277**

$\alpha = .05$, * $p < .056$, ** $p < .05$

Analyses and Interpretations of the Relationship
between Intrinsic and Extrinsic Job Satisfaction
in Occupational Therapists

Hypothesis IV: The null hypothesis was rejected based on the result of the Pearson product moment correlation. There was a positive relationship in the scale scores of intrinsic and extrinsic job satisfaction scales for the total group. The p value was significant at .001 level ($r = .808$).

CHAPTER V

DISCUSSION

The study method used in this survey was the mailed questionnaire method. Although estimates of response to a mailed questionnaire varied, a normal expectation was reported that nearly 30 percent of the questionnaire mailed would be **returned** (Black and Champion 1976). The response rate of this study was 61.6%. This rate was much higher than the normal expected response rate. An analysis of the sex distribution indicated that 95.1% of the respondent group were females and 4.9% were males. The percentage approximated those of all occupational therapists in the U.S.A. reported in 1977 (O.T. Newspaper Feb. 1979), 1973 (Acquaviva 1975), and 1970 (Jantzen 1972) (see table 10). The percentage of currently employed therapists in the respondent group (77.0%) was similar to those national percentages reported before, such as , 78.0% in 1977 (O.T. Newspaper Feb. 1979), 66.6% in 1973 (Acquaviva 1975), and 63.8% in 1970 (Jantzen 1972) (see table 10). The respondent group was considered to be fully representative of all registered occupational therapists in the Texas area.

TABLE 10

AGE, SEX, AND EMPLOYMENT STATUS DISTRIBUTION
OF REGISTERED OCCUPATIONAL THERAPISTS

	1970*	1973*	1977*	1980**
Female	96.1%	96.0%	95.0%	95.1%
Male	3.9%	4.0%	5.0%	4.9%
Median Age				
male	39.7 yr.	34.5 yr.		
female	35.3 yr.	32.6 yr.	31.5 yr.	30.0 yr.
Full-time	50.1%***	55.3%	63.6%	68.6%
Part-time	13.7%***	11.3%	14.4%	8.2%

* national survey

** Texas area

***This data is for female therapists only.

The results of this study presented the following findings. (1) The PART group was significantly more satisfied than the FULL group based on the scores of general job satisfaction and intrinsic job satisfaction. (2) The CURRENT group was significantly less satisfied than the PREVIOUS group based on the scores of general job satisfaction and intrinsic job satisfaction. (3) The

CURRENT group was significantly more satisfied than the PREVIOUS group based on the scores of extrinsic job satisfaction. (4) The EXPERIENCED group was significantly more satisfied than the INEXPERIENCED group based on the scores of all three scales. (5) The relationship between intrinsic job satisfaction and extrinsic job satisfaction was significantly positive. The score of intrinsic job satisfaction was higher than that of extrinsic job satisfaction.

In the present study, none of the results of the Mann-Whitney U tests reached a significant level. All but one of the results of the Point-biserial Spearman rank correlations were significant. This was probably due to the fact that sampling resulted in some small group sizes which decreased the possibility of rejecting the null hypothesis. For instance, there were 5 therapists in the PART group, 8 in the PREVIOUS group.

Some interesting trends were noted. The PART group had higher levels of general job satisfaction and intrinsic job satisfaction than the FULL group. This supported the findings of Hines' (1974) in groups of nurses. In his study of job satisfaction between part-time nurses and full-time nurses, he found that promotion opportunities effectively discriminated between satisfied and dissatisfied full-time nurses while the chance for

accomplishment of something worthwhile played a similar role with part-time nurses. The reason for this phenomenon was probably that part-time employed therapists had more free time to refresh themselves and had a more flexible or appropriate time schedule to fit their needs (Kando 1975). Besides this, the fields in which they worked might influence the responses they gave. Among 5 part-time employed therapists in this study, 4 worked in the pediatric aspect of occupational therapy. Further study was recommended to analyze the influencing factors on part-time employed therapists.

The findings that the PART group and the PREVIOUS group tended to be less satisfied than the CURRENT and FULL groups with the extrinsic job factors supported the speculation made by Pritchard and Peters (1974), and the evaluation of precursors of turnover made by Mobley, Horner, and Hollingsworth (1978). Pritchard and Peters speculated from their study results that turnover might be related to the level of extrinsic job satisfaction. Mobley, Horner, and Hollingsworth found that turnover was resulted from job dissatisfaction.

Further examination of the subscale scores in the extrinsic job satisfaction scale (see table 6) showed that both mean and median of the scale score for advancement were the lowest among all the subscales. This may indicate

that occupational therapists felt most dissatisfied with the opportunities for promotion. This result was in accordance with the suggestion advocated by many researchers and educators that lack of career mobility was the main reason for high drop-out rate (Perry 1969; Joiner and Blayney 1974; Broski and Cook 1978).

As marital status was frequently cited as a main reason for the high drop-out rate of women workers (Mathewson 1975; Women's Bureau 1975; Brief 1976), the Student's t test and the Chi square were used to examine the relationship between marital status and employment status in this study. In order to focus considerations on those of child-bearing and child-rearing age, 40 years was chosen as the cut-off point. There were 41 female therapists under 40 years old; 25 were married and 16 single. The result of the Student's t test indicated that no difference existed in the level of general job satisfaction between married therapists and single therapists ($p = .097$, see table 11). The result of the Chi square indicated that there was no difference in the frequency of different employment status between married and single therapists under 40 years old (see table 12). These two results did not support the proposition that marriage would negatively influence the labor force participation of married women workers. According to the reasons for the drop out stated by 14 persons of the

TABLE 11

STUDENT'S t TEST FOR THE COMPARISON OF THE GENERAL
JOB SATISFACTION SCORE BETWEEN MARRIED AND
SINGLE THERAPISTS UNDER 40 YEARS OLD

	Mean	Median	t Value	P
Married	64.82	65.00	-1.70	.097
Single	75.37	76.00		

$\alpha = .05$

TABLE 12

CHI-SQUARE TEST FOR THE COMPARISON OF FREQUENCY DISTRIBUTION
IN DIFFERENT EMPLOYMENT STATUS BETWEEN MARRIED
AND SINGLE THERAPISTS UNDER 40 YEARS OLD

	CURRENT	PREVIOUS	Total	χ^2
Married	16	9	25	1.70*
Single	14	2	16	
Total	30	11	41	

$\alpha = .05$

*p= .192

PREVIOUS group, only 4 (28.6%) therapists indicated that family and young children at home were the reasons. As to others, 2 (14.3%) therapists stated lack of job opportunities in the residential area; 3 (21.4%) stated job dissatisfaction and low payment; 2 (14.3%) planned to go back to school; 1 (7.1%) was retired; 1 (7.1%) desired to return to occupational therapy but felt lacking in current knowledge; and 1 (7.1%) stated that she used knowledge gained from occupational therapy in a related field.

As to the years of experience, the median number of years of experience for all subjects was 5.0 years. The EXPERIENCED group indicated more job satisfaction. Further analysis was made to examine general job satisfaction level of the INEXPERIENCED group. There were 15 therapists in this group. Ten held bachelor's degrees and five held entry level master's degrees. The median age indicated that the therapist with an entry level master's degree was two years older than one with a bachelor's degree (27.75 yr. vs. 25.67 yr.). The result of the Mann-Whitney U test pointed out that therapists with entry level master's degrees were more satisfied than those with only bachelor's degrees ($U = 11.00$, $p = .05$). The American Occupational Therapy Association's data indicated that increasing numbers of young and inexperienced therapists are in the profession. In order

to increase the quality of professional function, continuing education is needed (Acquaviva 1972). The result of the present study indicate that young and inexperienced therapists with bachelor's degrees only are perhaps most in need of continuing education and professional support.

The strong positive relationship between the intrinsic job satisfaction and extrinsic job satisfaction indicated that the two factors significantly influence each other. If an occupational therapist had a higher level of intrinsic job satisfaction, he (she) would also feel more satisfied with the extrinsic job factors. But, on the other hand, an occupational therapist with a low level of extrinsic job satisfaction would probably have a low level of satisfaction with the intrinsic job factors. This might lead to an increasing rate of turnover. According to the Theory of Work Adjustment (Dawis 1968), job dissatisfaction resulted from the lack of correspondence between the worker's needs and the reinforcers provided by work. The greatest cause of fiscal loss in personnel management was reported to be employee turnover (Brief 1976). In order to prevent fiscal loss from the result of turnover and raise the retention rate of therapists, the administrators in occupational therapy are advised to investigate and manage appropriately the job satisfaction factors, especially the extrinsic job factors in the working environment.

CHAPTER V

SUMMARY AND CONCLUSIONS

Summary

The purposes of this study were to investigate the employment status of occupational therapists, to evaluate the job satisfaction level of occupational therapists, and to determine how occupational therapists felt about specific job facets. One hundred registered occupational therapists were randomly selected from 885 registered occupational therapists in the Texas area. The instruments used were a personal data sheet and the long form of the Minnesota Satisfaction Questionnaire, 1967 Revision. Permission to use the questionnaire was received from the Work Adjustment Program at the University of Minnesota. As one questionnaire was returned by the post office, the sample size was reduced to 99. The response rate was 61.6%. The group was 95.1% female and 4.9% male. The mean age was 33.68 years. The median age was 30.00 years. Seventy-seven percent of the registered therapists were currently employed in occupational therapy.

The main findings of this study were described as follows:

1. The PART group was significantly more satisfied than the FULL group based on the scores of general job satisfaction and intrinsic job satisfaction.

2. The CURRENT group was significantly less satisfied than the PREVIOUS group based on the scores of general job satisfaction and intrinsic job satisfaction.

3. The CURRENT group was significantly more satisfied than the PREVIOUS group based on the score of extrinsic job satisfaction.

4. The EXPERIENCED group was significantly more satisfied than the INEXPERIENCED group based on the scores of all three scales.

5. The relationship between intrinsic job satisfaction and extrinsic job satisfaction was significantly positive and the score of intrinsic job satisfaction was higher than that of extrinsic job satisfaction.

6. No relationship existed between marital status and employment status.

Conclusions

The results of this study supported the proposition that lack of career mobility was the main reason for high drop-out rate. Marital status did not influence the participation of occupational therapists in the labor

force. Young and inexperienced therapists were less satisfied with their job than were experienced therapists. The level of intrinsic job satisfaction corresponded to the level of extrinsic job satisfaction for the total group.

CHAPTER VI

IMPLICATIONS AND RECOMMENDATIONS

Implications

Based on the results of this study several implications were drawn.

1. In order to increase the retention rate of occupational therapists, the extrinsic and intrinsic job factors should be carefully examined. Marriage and family could be no longer regarded as the main reasons for turnover or drop out.

2. In order to facilitate the growth of occupational therapy, continuing education and professional support should be provided for young and inexperienced therapists.

3. In order to recruit returning therapists, appropriate continuing education should be arranged.

Recommendations

The recommendations, listed as follows, would serve to strengthen further efforts in investigation of this area.

1. Stratified samples of equal size should be adopted in future studies in order to strengthen the representation of results and consequently their application

to the field of occupational therapy.

2. An instrument with questions more specific to occupational therapy should be used in future studies in order to directly analyze and confirm the relationship between career mobility and drop-out rate.

3. More complete demographic information such as numbers of young children at home, working intentions, and financial conditions should be included in future studies.

4. It might also be helpful to determine whether the individual was employed in an area of special interest or was practicing in an area which was not congruent with interest.

5. Further studies of intrinsic and extrinsic job factors and their correlations with occupational therapy services should allow better planning for improvement of patient care.

6. Further studies of experienced and inexperienced therapists' attitudes toward extrinsic and intrinsic job factors should allow better planning for the increase of job satisfaction and the retention rate of the field.

APPENDIX A

Intrinsic and Extrinsic Factors as Measured by the MSQ

Factors	Scales	Items				
Intrinsic	Ability utilization	7	27	47	67	87
Intrinsic	Achievement	19	39	59	79	99
Intrinsic	Activity	20	40	60	80	100
Extrinsic	Advancement	14	34	54	74	94
Intrinsic	Authority	6	26	46	66	86
Extrinsic	Company policies and practices	9	29	49	69	89
Extrinsic	Compensation	12	32	52	72	92
	Co-workers	16	36	56	76	96
Intrinsic	Creativity	2	22	42	62	82
Intrinsic	Independence	4	24	44	64	84
Intrinsic	Moral values	3	23	43	63	83
Extrinsic	Recognition	18	38	58	78	98
Intrinsic	Responsibility	17	37	57	77	97
Intrinsic	Security	11	31	51	71	91
Intrinsic	Social service	1	21	41	61	81
Intrinsic	Social status	8	28	48	68	88
Extrinsic	Supervision-human relations	10	30	50	70	90
Extrinsic	Supervision-technical	15	35	55	75	95
Intrinsic	Variety	5	25	45	65	85
	Working conditions	13	33	53	73	93

APPENDIX B

Sample of Cover Letter

Reply to Chen, Shu-Chuan
Attn of: P.O. Box 23155, TWU Station
 Denton, Tx 76204

Subject: Survey of Job Satisfaction of Occupational
 Therapists in the Texas Area

To: Randomly Selected Occupational Therapists

1. Your assistance is required and highly appreciated in this study concerning the job satisfaction of occupational therapists in the Texas area.
2. This survey is being distributed to a randomly selected group of occupational therapists in this state. The study seeks to gain knowledge and understanding of the attitudes and feelings of occupational therapists toward their jobs, and their relation to employment status, years of experience, speciality, and educational status.

3. Please complete the personal data sheet and the questionnaire and return them in the enclosed envelope within 7 days. It will be kept anonymous and confidential. The returned mail will be regarded as the consent of respondent to be one subject in the study.
4. In compliance with the Human Subject Review Committee, these two statements should be presented.
 - A. No medical service or compensation is provided to subjects by the University as a result of injury from participation in research.
 - B. I UNDERSTAND THAT THE RETURN OF MY QUESTIONNAIRE CONSTITUTES MY INFORMED CONSENT TO ACT AS A SUBJECT IN THIS RESEARCH.
5. Thank you very much for your kind assistance and contribution to this study.

Chen, Shu-Chuan, OTR

Graduate Student of TWU, School of O.T.

P.O. Box 23155, TWU Station

Denton, Texas 76204

APPENDIX C

Personal Data Sheet

Listed below are items considered important for the purpose of this study. Place your response to each statement in the space provided to the left of each item.

1. _____ Age.
2. _____ Sex.
3. _____ Marital status.
4. _____ Your present employment status.
 full-time O.T. (work 40 hrs/wk or be designated
 as full-time by the job)
 part-time O.T. (work less than full-time)
 unemployed
 other job
5. _____ Please state the reason briefly why you are
 _____ not employed as an O.T. right now.

6. _____ Your highest level of education.
 (1) Diploma program
 (2) Bachelor's degree
 (3) Master of O.T. (entry level of Master's degree)
 (4) Master of Science or Master of Art
 Years of experience working as an O.T.R.
7. _____
8. _____ Your current job title in the occupational
 therapy field.
9. _____ Years of holding the present job as an O.T.
 (If you are not employed or not employed as
 an O.T. right now, please write down how many
 years you had for the last job as an O.T.)

10. _____ Area of practice in occupational therapy.
 (If you are not employed as an O.T. right now,
 please write down the field you were in for
 the last job working as an O.T.)

Pediatrics	School system
Physical dysfunction	Private practice
Psychosocial dysfunction	Others
Geriatrics	Never worked

On the line below, place a check mark to show how satisfied you are with your job. You may place your check anywhere on the line either above one of the statement or between them.

completely dissatisfied	more dissatis- fied than satisfied	about half and half	more satisfied than not	completely satisfied
----------------------------	--	---------------------------	-------------------------------	-------------------------

Please circle the number of the item which express your present status.

1. I am a certified OTR.
2. I am a certified OTR and also a member of AOTA.

APPENDIX D

Minnesota Satisfaction Questionnaire

Directions

The purpose of this questionnaire is to give you a chance to tell how you feel about your present job, what things you are satisfied with and what things you are not satisfied.

On the basis of your answers and those of people like you, we hope to get a better understanding of the things people like and dislike about their jobs.

On the following pages you will find statements about certain aspects of your present job.

- . Read each statement carefully.
- . Decide how you feel about the aspect of your job described by the statement.
 - Circle 1 if you are not satisfied (if that aspect is much poorer than you would like it to be).
 - Circle 2 if you are only slightly satisfied (if that aspect is not quite what you would like it to be).
 - Circle 3 if you are satisfied (if that aspect is what you would like it to be).
 - Circle 4 if you are very satisfied (if that aspect is even better than you expected it to be).
 - Circle 5 if you are extremely satisfied (if that aspect is much better than you hoped it could be).

- . Be sure to keep the statement in mind when deciding how you feel about that aspect of your job.
- . Do this for all statement. Answer every item.
- . Do not return back to previous statements.

Be frank. Give a true picture of your feelings about your present job.

Ask yourself: How satisfied am I with this aspect of my job?

- 1 means I am not satisfied (this aspect of my job is much poorer than I would like it to be).
 2 means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be).
 3 means I am satisfied (this aspect of my job is what I would like it to be).
 4 means I am very satisfied (this aspect of my job is even better than I expected it to be).
 5 means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my present job, this is how I feel about ...	For each statement circle a number				
1. The chance to be of service to others.....	1	2	3	4	5
2. The chance to try out some of my own ideas..	1	2	3	4	5
3. Being able to do the job without feeling it is morally wrong.....	1	2	3	4	5
4. The chance to work by myself.....	1	2	3	4	5
5. The variety in my work.....	1	2	3	4	5
6. The chance to have other workers look to me for direction.....	1	2	3	4	5
7. The chance to do the kind of work that I do best.....	1	2	3	4	5
8. The social position in the community that goes with the job.....	1	2	3	4	5
9. The policies and practices toward employees of this company.....	1	2	3	4	5
10. The way my supervisor and I understand each other.....	1	2	3	4	5
11. My job security.....	1	2	3	4	5
12. The amount of pay for the work I do.....	1	2	3	4	5
13. The working conditions (heating, lighting, ventilation, etc.) on this job.....	1	2	3	4	5
14. The opportunities for advancement on this job.....	1	2	3	4	5
15. The technical "know-how" of my supervisor...	1	2	3	4	5
16. The spirit of cooperation among my co-worker	1	2	3	4	5
17. The chance to be responsible for planning my work.....	1	2	3	4	5
18. The way I am noticed when I do a good job...	1	2	3	4	5
19. Being able to see the results of the work I do.....	1	2	3	4	5
20. The chance to be active much of the time...	1	2	3	4	5
21. The chance to be of service to people.....	1	2	3	4	5
22. The chance to do new and original things on my own.....	1	2	3	4	5
23. Being able to do things that don't go against my religious beliefs.....	1	2	3	4	5
24. The chance to work alone on the job.....	1	2	3	4	5
25. The chance to do different things from time to time.....	1	2	3	4	5

Ask yourself: How satisfied am I with this aspect of my job?

- 1 means I am not satisfied (this aspect of my job is much poorer than I would like it to be).
 2 means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be).
 3 means I am satisfied (this aspect of my job is what I would like it to be).
 4 means I am very satisfied (this aspect of my job is even better than I expected it to be).
 5 means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my present job, this is how I feel about ...	For each statement circle a number				
26. The chance to tell other workers how to do things.....	1	2	3	4	5
27. The chance to do work that is well suited to my abilities.....	1	2	3	4	5
28. The chance to be "somebody" in the community	1	2	3	4	5
29. Company policies and the way in which they are administered.....	1	2	3	4	5
30. The way my boss handles his men.....	1	2	3	4	5
31. The way my job provides for a secure future.	1	2	3	4	5
32. The chance to make as much money as my friends.....	1	2	3	4	5
33. The physical surroundings where I work.....	1	2	3	4	5
34. The chances of getting ahead on this job....	1	2	3	4	5
35. The competence of my supervisor in making decisions.....	1	2	3	4	5
36. The chance to develop close friendships with my co-workers.....	1	2	3	4	5
37. The chance to make decisions on my own.....	1	2	3	4	5
38. The way I get full credit for the work I do.	1	2	3	4	5
39. Being able to take pride in a job well done.	1	2	3	4	5
40. Being able to do something much of the time.	1	2	3	4	5
41. The chance to help people.....	1	2	3	4	5
42. The chance to try something different.....	1	2	3	4	5
43. Being able to do things that don't go against my conscience.....	1	2	3	4	5
44. The chance to be alone on the job.....	1	2	3	4	5
45. The routine in my work.....	1	2	3	4	5
46. The chance to supervise other people.....	1	2	3	4	5
47. The chance to make use of my best abilities.	1	2	3	4	5
48. The chance to "rub elbows" with important people.....	1	2	3	4	5
49. The way employees are informed about company policies.....	1	2	3	4	5
50. The way my boss backs his men up (with top management).....	1	2	3	4	5

Ask yourself: How satisfied am I with this aspect of my jobs?

- 1 means I am not satisfied (this aspect of my job is much poorer than I would like it to be).
 2 means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be).
 3 means I am satisfied (this aspect of my job is what I would like it to be).
 4 means I am very satisfied (this aspect of my job is even better than I expected it to be).
 5 means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my present job, this is how I feel about	For each statement circle a number				
51. The way my job provides for steady employment.....	1	2	3	4	5
52. How my pay compares with that for similar jobs in other companies.....	1	2	3	4	5
53. The pleasantness of the working conditions...	1	2	3	4	5
54. The way promotions are given out on this job.	1	2	3	4	5
55. The way my boss delegates work to others.....	1	2	3	4	5
56. The friendliness of my co-workers.....	1	2	3	4	5
57. The chance to be responsible for the work of others.....	1	2	3	4	5
58. The recognition I get for the work I do.....	1	2	3	4	5
59. Being able to do something worthwhile.....	1	2	3	4	5
60. Being able to stay busy.....	1	2	3	4	5
61. The chance to do things for other people.....	1	2	3	4	5
62. The chance to develop new and better ways to do the job.....	1	2	3	4	5
63. The chance to do things that don't harm other people.....	1	2	3	4	5
64. The chance to work independently of others...	1	2	3	4	5
65. The chance to do something different every day.....	1	2	3	4	5
66. The chance to tell people what to do.....	1	2	3	4	5
67. The chance to do something that makes use of my abilities.....	1	2	3	4	5
68. The chance to be important in the eyes of others.....	1	2	3	4	5
69. The way company policies are put into practice.....	1	2	3	4	5
70. The way my boss takes care of complaints brought to him by his men.....	1	2	3	4	5
71. How steady my job is.....	1	2	3	4	5
72. My pay and the amount of work I do.....	1	2	3	4	5
73. The physical working conditions of the job...	1	2	3	4	5
74. The chance for advancement on this job.....	1	2	3	4	5
75. The way my boss provides help on hard problems.....	1	2	3	4	5

Ask yourself: How satisfied am I with this aspect of my jobs?

- 1 means I am not satisfied (this aspect of my job is much poorer than I would like it to be).
 2 means I am only slightly satisfied (this aspect of my job is not quite what I would like it to be).
 3 means I am satisfied (this aspect of my job is what I would like it to be).
 4 means I am very satisfied (this aspect of my job is even better than I expected it to be).
 5 means I am extremely satisfied (this aspect of my job is much better than I hoped it could be).

On my present job, this is how I feel about ...		For each statement circle a number				
76.	The way my co-workers are easy to make friends with.....	1	2	3	4	5
77.	The freedom to use my own judgement.....	1	2	3	4	5
78.	The way they usually tell me when I do my job well.....	1	2	3	4	5
79.	The chance to do my best at all times.....	1	2	3	4	5
80.	The chance to be "on the go" all the time...	1	2	3	4	5
81.	The chance to be of some small service to other people.....	1	2	3	4	5
82.	The chance to try my own methods of doing the job.....	1	2	3	4	5
83.	The chance to do the job without feeling I am cheating anyone.....	1	2	3	4	5
84.	The chance to work away from others.....	1	2	3	4	5
85.	The chance to do many different things on the job.....	1	2	3	4	5
86.	The chance to tell others what to do.....	1	2	3	4	5
87.	The chance to make use of my abilities and skills.....	1	2	3	4	5
88.	The chance to have a definite place in the community.....	1	2	3	4	5
89.	The way the company treats its employees....	1	2	3	4	5
90.	The personal relationship between my boss and his men.....	1	2	3	4	5
91.	The way layoffs and transfers are avoided in my job.....	1	2	3	4	5
92.	How my pay compares with that of other worker	1	2	3	4	5
93.	The working conditions.....	1	2	3	4	5
94.	My chances for advancement.....	1	2	3	4	5
95.	The way my boss trains his men.....	1	2	3	4	5
96.	The way my co-workers get along with each other.....	1	2	3	4	5
97.	The responsibility of my job.....	1	2	3	4	5
98.	The praise I get for doing a good job.....	1	2	3	4	5
99.	The feeling of accomplishment I get from the job.....	1	2	3	4	5
100.	Being able to keep busy all the time.....	1	2	3	4	5

APPENDIX E

Sample of Permission Letter



UNIVERSITY OF MINNESOTA
TWIN CITIES

Vocational Psychology Research
Department of Psychology
Elliott Hall
75 East River Road
Minneapolis, Minnesota 55455

May 2, 1980

Shu-Chuan Chen
P.O. Box 23155
Texas Women's University Station
Denton, Texas 76204

Dear Ms. Chen:

You have permission to use the Minnesota Satisfaction Questionnaire, long form in your thesis research. The requested 110 copies of the 1967 revision of the MSQ long form accompany this letter.

Upon completion of your thesis, we would like to receive a copy of the thesis, or at least of the abstract and sections related to the MSQ.

If we may be of further assistance to you in your use of the MSQ, please do not hesitate to contact us for additional information.

You have our best wishes for success in your research!

Cordially,

George A. Henly
George A. Henly,
Administrative Assistant

APPENDIX F

Sample of Intention Card

Dear Miss Chen:

Please send me a summary report when the study is finished.

My name is _____.

My address is _____.

APPENDIX G

Sample of Follow-Up Card

Dear Occupational Therapist:

Two weeks ago you received a questionnaire and a personal data sheet concerning the study of the job satisfaction of occupational therapists. As of this date, I still need 76 more returns. I request your assistance in this study; your help will be highly appreciated. If you have returned the questionnaire already, thank you very much for your cooperation.

Sincerely yours,

Chen, Shu-Chuan, OTR

APPENDIX H

Raw Scores for Each Subject

NO.	SEX	AGE	EMPLOYMENT	EDUCATION	GENERAL	INTRINSIC	EXTRINSIC	EXPERIENCE
1	F	38	FULL	B	76	22.8	13.2	10 yr.
2	F	60	FULL	D	100	24.8	24.3	38
3	M	47	FULL	B	93	22.7	22.3	15
4	F	26	PART	A.M.	62	16.2	15.3	4
5	F	27	FULL	E.M.	87	21.8	19.3	1.5
6	F	37	PREVIOUS	B	/	/	/	7.5
7	M	47	FULL	B	84	20.9	21.3	23
8	F	24	FULL	B	60	16.2	11.0	1.5
9	F	27	FULL	B	55	16.0	9.2	2
10	F	42	PREVIOUS	Dr	72	19.7	16.5	8
11	F	30	PREVIOUS	B	/	/	/	7
12	F	33	FULL	B	44	12.7	10.2	11
13	F	51	PART	B	90	24.2	16.5	28
14	F	27	PREVIOUS	B	65	18.3	11.8	5
15	F	30	PART	B	63	18.2	10.8	8.5
16	F	27	FULL	E.M.	67	16.4	15.5	1.5
17	F	27	FULL	B	73	18.8	15.8	4

NO.	SEX	AGE	EMPLOYMENT	EDUCATION	GENERAL	INTRINSIC	EXTRINSIC	EXPERIENCE
18	F	25	FULL	B	88	22.6	18.7	1
19	F	28	FULL	E.M.	49	12.6	11.3	2.5
20	F	29	FULL	B	73	17.7	18.0	4
21	F	26	FULL	B	73	17.8	16.0	4
22	F	31	PREVIOUS	B	83	23.2	17.2	10
23	F	54	FULL	D	41	11.3	7.2	21
24	F	31	PREVIOUS	B	76	21.2	11.3	7
25	F	24	FULL	B	50	14.6	7.2	2
26	F	30	FULL	B	79	21.4	18.7	5
27	F	/	RETIRED	/	/	/	/	/
28	F	25	FULL	B	68	19.0	12.2	2
29	F	27	PREVIOUS	B	41	10.3	8.3	5.5
30	F	24	PART	B	65	17.3	10.1	1.5
31	F	52	FULL	B	70	18.8	17.1	25
32	F	33	FULL	B	40	12.2	5.7	11
33	F	27	FULL	B	93	23.9	21.0	5
34	F	25	FULL	B	52	14.9	11.2	2
35	F	26	FULL	B	75	20.8	15.8	3
36	F	29	FULL	E.M.	95	24.2	22.2	1.5
37	F	27	FULL	B	68	19.9	12.0	4

NO.	SEX	AGE	EMPLOYMENT	EDUCATION	GENERAL	INTRINSIC	EXTRINSIC	EXPERIENCE
38	F	55	FULL	B	78	20.4	18.0	33
39	F	29	FULL	B	83	19.5	21.2	4
40	F	41	FULL	A.M.	62	15.1	12.5	19
41	F	52	FULL	D	71	18.6	14.2	25
42	F	28	PREVIOUS	E.M.	81	19.9	22.8	1
43	F	27	FULL	A.M.	89	23.2	18.5	7
44	F	22	FULL	B	43	11.3	7.5	1
45	F	32	FULL	B	54	15.2	10.5	4
46	F	36	PREVIOUS	B	91	23.9	19	9
47	F	30	FULL	B	49	14.5	9.3	6
48	F	50	FULL	B	58.2	16.3	10.8	6
49	F	31	PREVIOUS	B	58	14.9	12.2	1
50	F	28	FULL	A.M.	49	13.9	9.8	5
51	F	27	FULL	B	81	21.1	18	2
52	F	44	FULL	A.M.	66	17.7	15.2	22
53	F	40	PREVIOUS	/	/	/	/	/
54	F	25	FULL	E.M.	56	16.5	11.3	0.5
55	F	30	PART	E.M.	89.5	23.2	20.4	3.5
56	F	32	FULL	B	84	20.3	21.6	4

NO.	SEX	AGE	EMPLOYMENT	EDUCATION	GENERAL	INTRINSIC	EXTRINSIC	EXPERIENCE
57	F	36	PREVIOUS	B	/	/	/	/
58	F	31	FULL	A.M.	76	19.0	18.7	8
59	F	53	FULL	Dr	64	17.7	13.5	11
60	F	46	FULL	A.M.	84.3	20.9	21.3	11
61	M	23	PREVIOUS	/	/	/	/	1.5

D.: diploma program

B.: baccalaureate's degree

E.M.: entry level master program

A.M.: advanced master program

Dr: doctoral degree

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