STANDARDIZATION OF THE

TRACKING BEHAVIOR

ASSESSMENT

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CHAPTER I

INTRODUCTION

The process of assessment has become a widely accepted norm employed by allied health professions throughout the healthcare industry (Ferguson, 1983)..These assessments are often tailor made to suit the individualized need of the institution in which the assessment is developed. The assessments are frequently lacking in the statistical properties of reliability and validity, which compromise the ability of professionals to generalize interventions and outcomes of interventions beyond the immediate context of each facility (Anastasi, 1968). This is the case for the profession of therapeutic recreation; often assessments utilized are developed specifically for each treatment setting, creating a gap between what is desired and what actually exists. The gap, which is represented by what is desired; information, which is standardized, and generalizable and what actually exists, information which is typically non-standardized and non-generalizable, prevents interventions with desired outcomes from being applied throughout the industry with expectancy of similar outcomes (Stumbo & Rickards, 1986).

The purpose of this investigation will be to validate the Tracking Behavior Assessment, thereby lessening the gap that exists specifically for therapeutic recreation assessments designed for older adults with psychiatric diagnosis. "Approximately 532,000 community-dwelling older adults have a serious or chronic mental illness"

(Wacker, Roberto, & Piper, 1998, p. 214); however, there is little information regarding therapeutic recreation assessment of this population. To date, no therapeutic recreation assessment specifically designed for the population of geriatric clients with psychiatric diagnoses has been standardized to allow for the generalization of information from one treatment venue to another. Research addressing this problem area may prove valuable in the development of assessment tools to reveal specific treatment objectives for the rehabilitation of elderly clients with a psychiatric diagnosis.

To initiate lessening of the gap, a review of literature reveals that standardization of an assessment tool includes determining the validity and reliability of the instrument in question. Typically, the instrument is evaluated to establish its content validity, interrater reliability, and intrarater reliability. The inclusion of the content validity of an instrument, which is established by a panel of experts in the field of study, is important because the panel establishes that the instrument represents current terminology and processes applied within the profession. Interrater reliability is a statistic, which establishes the correlation of the scores between two individual raters of the instrument, both at the initial rating and over a period of time. The intrarater reliability is a statistic that establishes the correlation of individual rater's ratings over an established period of time (Bartz, 1988; Carmines & Zeller, 1979; Cronbach, 1971; Dunn, 1984; Linn, 1986; Stumbo, 1991).

Once an assessment tool has been standardized, it may be applied in the assessment process, which has been defined as a systematic analysis by which impairments and strengths are identified, and progress or lack of progress is documented (Ferguson, 1983). After impairments and strengths have been identified, the consequences of the impairments and strengths on the function of the elderly client

should be appraised. For a comprehensive assessment, individual treatment team members should evaluate the elderly client. Each team member uses unique skills to contribute to a comprehensive determination of functional status. Assessment information can be used to document and quantify functional status. When standardized, the assessment becomes an essential tool for analysis of rehabilitation outcome for elderly clients, participating in a specific intervention program. When this information is used by multiple treatment facilities to share data, significant information may be obtained to advance the state of the art and assess the cost versus benefit of treatment (Darely, 1975; Newmark, Sublett, Black, & Geller, 1981; Stolov & Hays, 1990).

Although therapists observe changes in patients' functioning throughout the course of care, these changes as described in the literature, have not been well-documented (Hutchison, Boyd, Feinstein, Genda, Hollemby, & Rowan, 1979). The profession needs a comprehensive assessment, which is an evaluation of functional status. The assessment should determine the extent to which activities important to everyday functioning of patients are performed and the assessment should be performed at various intervals during the patient's care. The assessment should be a quantitative evaluation in order to measure the change in the patient's functioning afforded by rehabilitative interventions (Stumbo, 1991; Stumbo & Rickards, 1986).

Assessment of individual functional skills has been driven in recent years by the need of allied health care entities to document progress or lack of progress of clients for national accrediting bodies and third party payers. This requirement for documentation of client abilities occurs typically upon admission, periodically throughout the hospital stay, and at time of discharge and is a direct result of the necessity of the various third party

payers to determine a variety of criteria (American Health Consultants, 1993; Boschen, 1985; Forer, 1982; Hamilton, Granger, Zielezny, & Tashman, 1987; Johnston, Keith & Hinderer, 1992). The set of criteria that national accrediting bodies and third party payers are attempting to verify establishes the potential of clients to make significant improvement; specific long-term and short-term treatment goals; prescribes treatment that is functional in nature; and, documents interventions for the treatment setting of the client (HCFA, 1993).

Purpose and Research Questions

The purpose of this study will be to establish the validity, reliability and usability of the Tracking Behavior Assessment. The following questions will be answered:

1. What is the content validity of the Tracking Behavior Assessment?
2. What is the internal consistency of the Tracking Behavior Assessment?
3. What is the inter-rater reliability of the Tracking Behavior Assessment?
4. What is the intra-rater reliability of the Tracking Behavior Assessment?
5. What is the usability/feasibility of the Tracking Behavior Assessment?

Definition of Terms

For the purpose of this study, the following definitions were used:

Certified therapeutic recreation specialist: a professional who is certified by the National Council for Therapeutic Recreation (Carter, Van Andel, & Robb, 1995).

Third party payers: organizations that reimburse healthcare facilities for services rendered to eligible clients (Carter, Van Andel, & Robb, 1995).

Affective Disorders: an alteration in mood, which is considered pathologic because it is: excessive in intensity, excessive in duration, and/or accompanied by significant disturbances in body function or behavior (American Psychiatric Association, 2001).

Successful Aging: according to activity theory, successful aging is "dependent on maintenance and enactment of roles through participation in activity (McGuire, Boyd, & Tedrick, 1996, p. 22).

Geriatric Population: the segment of the United States of America population which is age sixty-five or older (Geriatrics, 2000).

Gero-Psychiatric Population: the portion of the population who is sixty-five or older with a psychiatric diagnosis, being served by psychiatric treatment services.

Assumptions

The following assumptions were made:

1. The certified therapeutic recreation specialists with experience in gero-psychiatry, selected for the investigation, have similar knowledge and experience as other certified therapeutic recreation specialists working in gero-psychiatry throughout the United States.
2. Satisfactory assessment skills exist for the selected CTRS participants to complete the Tracking Behavioral Assessment.

3. Rating the elderly participant in this video, using the Tracking Behavior Assessment, is similar to rating other clients using the same instrument.

Delimitations

This investigation has the following delimitation:

Certified therapeutic recreation specialists with experience working with the gero-psychiatric population were selected for this investigation.

CHAPTER II

LITERATURE REVIEW

Introduction

This chapter reports a review of literature pertinent to this study. The review of literature is divided into five different sections. The review of literature begins with addressing standards of practice, which address the need for an assessment in the clinical setting. A section will address the various theories of assessment development/current gero-psychiatric assessment in therapeutic recreation; development and theories of development of the geriatric psychiatric population, the components of the Tracking Behavior Assessment, and lastly a section will examine the need for the use of the Tracking Behavior Assessment with the geriatric population. The topics of the sections consist of standards addressing assessment, theories addressing the geriatric population, development of an assessment, and lastly development of components existing within the TBA.

Pioneers in the profession of Therapeutic Recreation brought a focus to the profession and advanced the understanding of the role of standardized assessments. As a result of their work, it now appears that determining the validity, reliability, and usability of an assessment designed for use with the geriatric psychiatric population is a critical

variable to explore in the quest to provide the most appropriate therapeutic interventions possible (Burlingame & Blaschko, 1990; Dunn, 1984; Howe, 1984; Stumbo & Rickards, 1986). This study was designed to determine the validity, reliability, and usability of the Tracking Behavior Assessment.

Standards of Practice Addressing Assessment

The following discussion will outline the requirements of national professional organizations and national certifying organizations, which influence and guide assessments utilized within the profession of therapeutic recreation. The literature, which will be reviewed, contains the national standards and regulations governing the delivery of therapeutic recreation services by the American Therapeutic Recreation Association, the National Therapeutic Recreation Society, the National Council for Therapeutic Recreation Certification, the Council on Accreditation of Rehabilitative Facilities, the Joint Commission on Accreditation of Healthcare Organizations and the HealthCare Financing Administration. All of the national organizations, which will be discussed, require various levels of assessments to be conducted, or competencies to be met by certified therapeutic recreation specialists.

American Therapeutic Recreation Association

In 1986 Stumbo and Rickards called for the profession of therapeutic recreation to develop quantitative assessments to assist with the ever-increasing demand for

accountability. In addition to this call for greater accountability in delivery of therapeutic recreation services, national organizations were developing or reemphasizing the necessity of the profession to provide documentation of the benefits to clients who receive the service.

In 1991, the American Therapeutic Recreation Association (ATRA) ratified standards of practice for the profession of therapeutic recreation. These standards identified two clear domains of service "Direct Practice in Therapeutic Recreation and Management of the Practice in Therapeutic Recreation" (ATRA, p. 10, 1991). Within the direct practice domain of service is standard number four, which directly addresses the assessment/evaluation of clients. Standard number four declares that a client receiving services from a therapeutic recreation specialist is to have systematic evaluations at various times. These evaluations are to be part of a larger comprehensive treatment plan. The standard also indicates that the evaluation should be conducted, at minimum upon admission to the treatment facility and upon discharge from the treatment facility. The premise for timely assessment referred to in standard number four is to provide comparative information to document client's response to treatment interventions. This documentation, in addition to providing insight into the response of a client to an intervention or treatment plan, also provides evidence of accountability for services rendered (ATRA, 1991).

National Therapeutic Recreation Society

The National Therapeutic Recreation Society (NTRS), similar to the American Therapeutic Recreation Association in 1994, ratified its Standards of Practice for Therapeutic Recreation Services. Standard III: Individual Treatment/Program Plan, calls for the development of individualized treatment plans based on the client's needs, which can be served by the agency (NTRS, 1995).

Standard IV: Documentation states "...therapeutic recreation specialist records specific information based on client assessment..." (NTRS, 1995). According to the standards of practice established by NTRS, this information is to be utilized to assist in developing, as stated in Standard III, an individualized treatment plan. As with the ATRA standards of practice, the NTRS standards are in place in an attempt to ensure quality and efficient provision of services.

National Council for Therapeutic Recreation Certification

The National Council for Therapeutic Recreation Certification (NCTRC) is a not for profit organization which was established in 1981 to oversee the national certification of therapeutic recreation specialists. The organization's responsibilities include "establishing standards for certification and recertification, granting recognition to individuals who voluntarily apply and meet the established standards for certification and recertification, and monitoring adherence to the standards" (NCTRC, p. 1, 1999).

The organization, through a nationwide job analysis, established assessment as one of its core components utilized by the profession of therapeutic recreation. The job analysis identified assessment as occupying fourteen percent of a Certified Therapeutic Recreation Specialist's time while delivering services to clients at the various treatment venues. Therefore, NCTRC includes assessment because of the time devoted to it as one of the components tested during the certification process for professionals entering the field (NCTRC, 1999).

The national organization NCTRC, in addition to including assessment as one of its core components, identifies essential elements regarding selection of an assessment by a CTRS for use in a treatment facility. Of the elements identified, including purpose, domains of behavior, and procedures NCTRC identifies what is termed the process. The method, as identified by NCTRC, includes scrutiny of the reliability and validity of the assessment instrument (NCTRC, 1999).

Commission on Accreditation of Rehabilitation Facilities

The Commission on Accreditation of Rehabilitation Facilities (CARF) is a public not for profit organization devoted to improving and maintaining a high level of quality and care in the nation's physical rehabilitation facilities. This organization provides accreditation to these organizations based on established standards for the physical rehabilitative industry.

The Commission on Accreditation of Rehabilitation Facilities has set forth in Section II: Standards for All Programs item B Assessment and Individual Program Planning, very specific steps for the process of assessment.

1. The organization should establish and follow procedures to assess the individual's needs and to determine the individual's program based on those needs.
2. There should be a clearly identifiable mechanism for initial and ongoing assessment of the appropriateness of continued service for each person served, in relation to other program alternatives inside or apart from the organization.
3. Upon entrance/admission of the individual to the program, the staff should review referral information and, through appropriate evaluation procedures, should supplement this information as needed for initiation or continuation of treatment or training. This appraisal should include the individual's physical, psychological, social and familial, vocational, and educational status. Areas covered in the evaluation are determined by the needs of the person served and the goals of the organization (CARF, p 30, 1989).

Health Care Financing Administration

The Health Care Financing Administration (HCFA), which is a not for profit governmental organization, has the duty to manage, for the government of the United States of America, the Medicare payment system and does so based on established standards. Among these are standards requiring establishment of realistic goals for

individual clients, based on attempting to return them to the highest level of independent functioning. In addition to establishment of these goals, assessment of progress toward the established goals is also required (HCFA, 1993).

Joint Commission on Accreditation of Healthcare Organizations

The Joint Commission on Accreditation of Healthcare Organizations (JCAHO) is a public not for profit organization dedicated to improving the quality of care in the nation's healthcare facilities. The organization provides national accreditation for healthcare organization based on sets of established standards. Standards PE.1 through PE.8 specifically address the assessment of function of clients to determine the most appropriate course of care (JCAHO, 1996). JCAHO identifies three specific steps in assessing a client's potential for benefiting from treatment intervention.

1. Collecting data – the hospital collects data about each patient's physical and psychosocial status and health history.
2. Analyzing data – the hospital analyzes data to produce information about each patient's care needs, and to identify any additional information required.
3. Making care decisions – the hospital bases care decisions on information developed about each patient's needs. Hospitals meet the goal of this function by performing these processes and activities well (JCAHO, 1996, p.53).

In addition to the three steps outlined above, three different standards have been put forth to outline the procedures and requirements for assessment during a hospitalization. Standard PE. 1 through PE. 1.3.1 details the requirement of an initial

assessment and items that are required to be included in the assessment. PE. 1.3 specifically requires that "Functional status is assessed when warranted by the patient's needs or condition" (JCAHO, 1996, p.59).

The Joint Commission on Accreditation of Hospital Organizations' requirements for reassessments as stated in PE. 2 through PE. 2.4 describe the intent of JCAHO in regard to reassessment of a current client. "Patient reassessment is key to understanding if care decisions are appropriate and effective. Patients are reassessed throughout the care process and at follow-up appointments. Hospital policy designates reassessment purposes and key reassessment points, including specific time intervals" (JCAHO, 1996, p.67).

The national organizations mentioned above all have similar reasoning for requiring assessment's to have similar criteria. First, each organization emphasizes, if not requires, assessment to be quantitative in nature to provide an avenue for accountability of services. The assessments also provide documentation of benefits to the clients receiving the therapeutic interventions, in addition to assisting in ensuring evaluation is conducted in a systematic manner. Assessment information gathered by individual disciplines becomes the basis for the required comprehensive treatment plan. Each national organization has as one of its core requirements, a periodic evaluation to provide practical information. The strong emphasis on assessments, discussed above, highlights the need to hold medical service professionals accountable to their clients (ATRA, 1991; CARF, 1989; HCFA, 1993; JCAHO 1996; NCTRC, 1999; NTRS, 1994).

Theories of Assessment Development/Current Gero-Psychiatric Assessment in Therapeutic Recreation

Stumbo (1993/94) suggests, "three major assumptions that can be made about clients in clinically-based settings where therapeutic recreation programs are implemented" (p. 12). The three assumptions are: that clients with similar diagnosis experience similar problems; clients with significant problems in functioning can experience improvement in those deficient areas; clients through participation in specifically designed therapeutic recreation interventions, can experience improvement in those domains of behavior in which the deficits exist. However, for clients to experience improvement in those areas of deficit, they must first be assessed using a valid and reliable assessment tool (Stumbo, 1991).

Assessing treatment outcome in clients with psychiatric diagnosis, especially elderly clients, is difficult and complicated. It is also difficult to distinguish between the particular effects of the specific interventions from those of overall rehabilitation efforts and the client's spontaneous improvement due to environment and natural development. Accordingly, there is a lack of satisfactory tools for assessing outcomes in clients with psychiatric diagnoses (burlingame & Blaschko, 1990; Dunn, 1984; Howe, 1984; Stumbo, 1990; Stumbo & Rickards, 1986).

All measurements are susceptible to sources of variation, including factors pertaining to the subject of assessment, the test, the user, and the context. The decisive test of an instrument of this kind is its reliability, i.e., the consistency of the results obtained at repeated applications, over time or between observers (Sackett, Haynes,

Gyatt, & Tugwell, 1991). Russell and colleagues have singled out important variables, such as the performance status, degree of illness of the examinee and the duration of the assessment, as factors that may vary from one test to another (Russell, Rosenbaum, Lane, Gowland, Goldsmith, Boyce, & Plews, 1994). Factors associated with the environment include the test setting, temperature, and time of day. Other sources of variability are patient compliance, age and background, experience of the examiner, the examiner's familiarity with the examinee, and the methods of assessment, e.g., direct contact or indirect contact (Russell, et al., 1994). For reliability to be general, reliability testing needs to be conducted with people deemed to be typical of those the instrument was designed to test. When considering the incorporation of a new test in clinical practice, it is important to determine whether the test is well standardized, valid, reliable, and clinically useful (Stengel, 1991).

A discussion regarding the development and testing of the psychometric properties of a quantitative functional ability assessment for application with elderly individuals with a psychiatric diagnosis should include a review of the current functional assessments available within the field of therapeutic recreation for such a population (burlingame & Blaschko, 1990). The following discussion will report the information available, found within the literature regarding therapeutic recreation assessments, for elderly individuals with a psychiatric diagnosis.

A thorough review of the literature revealed no therapeutic recreation assessments specifically developed for use with elderly individuals with a psychiatric diagnosis. However, the literature review did reveal one assessment specifically developed for use with the psychiatric population. The Comprehensive Evaluation in Recreational Therapy

(CERT) was developed for use by certified therapeutic recreation therapists with the general psychiatric population (Stumbo, 1991).

The Comprehensive Evaluation in Recreational Therapy--Psych/Behavioral assessment was developed for both adult and youth clients to evaluate their ability to integrate into society utilizing his/her social interaction skills. The psychiatric version of the CERT has had limited testing on its reliability and validity indicating the inability to generalize effectiveness of interventions from treatment facility to treatment facility. However, when a standardized assessment has been utilized for psychiatric assessments, certified therapeutic recreation therapists have selected this version (burlingame & Blaschko, 1990).

Creating an Assessment

The current study was developed to design a behaviorally oriented instrument that is reliable, valid and that comprehensively measures the dimensions of elderly psychiatric functional abilities, which would be useful for therapeutic recreation programming. The theoretical foundation was developed based on Bandura's Social Learning Theory. A systematic, logical process was followed to identify the content domain or major concepts (Dunn, 1984, 1987; Stumbo & Rickard 1986).

Theory

What are the steps to take to design a sound, theoretically based assessment? Although many sources have acknowledged the gap between theory and practice within the context of therapeutic recreation assessment development, there is not much available information suggesting how one might correct this state of affairs. The individuals implementing therapeutic recreation assessments often are not equipped with the knowledge of theoretical foundations to enable them to develop theoretically motivated assessment tools. Similarly, those professionals armed with the needed background in theoretical foundations frequently do not have experience in implementing behaviorally oriented assessment tools (Bedini, & Wu, 1994; Shank, Coyle, Boyd, & Kinney, 1996; Stumbo, 1986, 1991). Given such discrepancy mentioned above, a systematic method of integration of theory and practice such that effective assessment tools grounded in established theoretical foundations should be followed.

Step number one of a seven-step approach initiates with a review of theoretical foundations currently applied within the field of therapeutic recreation. This step is conducted to gain an understanding of the nature of current theories being applied in the field of therapeutic recreation. Step number two entails a thorough evaluation of the literature concerning the area of service for which the assessment tool is being developed. This second review of literature is to establish the scientific processes related to the pathology involved including the presentation of symptoms. The third step would be to examine current clinical remediation practices to gain an appreciation of which techniques have been successful and the associated shortcomings. Step four consists of

observation of elderly clients with psychiatric diagnoses to become aware of clinical manifestations of the impaired psychiatric processes (Ellis, 1989; Gordon, 1987; Sylvester, 1989).

Step five of the process starts with an outline of the theoretical components of the assessment areas, which are developed based on the theoretical treatment model. Step six is the hierarchical organization of the assessment tasks for each of the components of the theoretical model, meaning an outline of the assessment process (Ellis, 1989; Gordon, 1987; Sylvester, 1989).

The final step involves clinical evaluations of the assessment tool. It is during this step that testing of the reliability and validity of the assessment tool is initiated (Ellis, 1989; Gordon, 1987; Sylvester, 1989). The seven steps that comprise the process provide an outline of the procedures necessary to produce effective assessment tools to assess clients served by the profession of therapeutic recreation. Certainly, these procedures do not constitute a fast or easy process, but instead require careful research and development.

Reliability

In terms of research, reliability stands for an instruments' repeatability or consistency (Malkin & Howe, 1993; Stumbo, 1991). An instrument is considered reliable if it continually/consistently divulges the same measurement over time. An acceptable tally of reliability is reported in decimals between one and zero, with one being the best representation of the reliability of an instrument. The measurement of one is typically

unrealistic; however, a score of .80 to .99 is considered acceptable (Bartz, 1988; Henderson & Bialeschki, 1995; Johnston, Keith, & Hinderer, 1992; Malkin & Howe, 1993). Hence the selection of an instrument for application with elderly individuals who have a psychiatric diagnosis with a reliability coefficient as high as possible as detailed above is prudent (Kloseck, Crilly, Ellis, & Lammers, 1996).

Validity

The validity of an instrument is its ability to measure what it is proposed to measure. Often an instrument appears to be measuring a selected construct until it is established by statistical means that it is actually measuring a completely different construct than perceived. What this means is an assessment may actually be measuring something different from what we think it is measuring. The assessment must be tested to determine whether it is measuring what it is suppose to be measuring (Bartz, 1988; Henderson & Bialeschki, 1995; Johnston, Keith, & Hinderer, 1992; Malkin & Howe, 1993; Stumbo, 1991).

According to Cronbach (1971), determining if an instrument is valid means it is measuring the construct it was designed to measure, which adds meaning to interpretation of the scores of the instrument. Validation of an instrument is a continuous process occurring over time, thereby creating an instrument which is valid but only for the population, for which testing was conducted. The range of acceptability for validity is typically determined by the investigator based on the population for which the instrument was developed.

Reliability and Validity

These terms are often thought of as independent concepts; however, one without the other leaves an instrument lacking. Using the example of a target and the purpose of shooting at the target is to obtain the best score possible, and the best score is located closest to the bulls-eye, the following example will explain the relationship of reliability and validity.

If the target is consistently hit in the same location but not the location intended, the shooter's shot is reliable but not valid. If the target is consistently hit randomly but not consistently hit in the center, the shooter's shot is valid but not reliable for the intended area. If the target is constantly hit randomly but the center is never hit, the shooter is neither reliable nor valid. However, if the target is consistently hit in the center the shooter's shot is both reliable and valid (Trochim, 1999). Repeatedly obtaining both a valid and reliable measurement for an elderly individual with a psychiatric diagnosis is vital to both the client and the person providing intervention. All parties involved the client, therapist, and third party payers, demand the most valid and reliable, method of assessment available.

Usability/Feasibility

Closely related to validity and reliability is an area of concern, which is often titled usability, or feasibility of the assessment instrument. What these two terms refer to is ease of administration, ease of scoring, cost, and time required to complete the

assessment instrument (Henderson & Bialeschki, 1995; Stumbo, 1991). It is recommended that these four areas be considered when selecting an assessment instrument.

For example, the instrument should have simple, easy to understand instructions taking less than a few minutes to review. Scoring of the instrument should likewise be quick and the results of the scoring should be easily interpreted without complicated procedures (Henderson & Bialeschki, 1995; Stumbo, 1991). According to Dunn (1987), individuals should always select assessment instruments which are cost effective and which divulge the information being sought.

Theories of Development of the Geriatric Psychiatric Population

One-fifth of the population of the United States is over fifty years of age. Life expectancy at age fifty-five is now eighty-one for women and seventy-nine for men. The total population has doubled in the past fifty years, but the number of persons over sixty-five has quadrupled. We hospitalize three times more persons for mental illness in this age group than in the population as a whole (Microsoft Corporation, 2000).

Aging itself is a process that is poorly defined and poorly understood. Whether or not the older person is likely to develop a psychiatric disorder seems determined by a number of interacting factors:

1. Previous life style, tolerance for more sedentary, pleasures, and ability to live with oneself;
2. Demonstrable impairment of brain substance;

3. Psychological stresses associated with aging;
4. Acute or chronic physical illness;
5. Cultural attitudes toward the older person and toward the roles available to him/her (Altrocchi, Antonuccio, & Miller, 1986; American Psychiatric Association, 2001; Antonuccio, 1995; Burrows, Satlin, Salzman, Nobel, & Lipsitz, 1995; Cooper, 1993).

The basic human needs for love, intimacy, and self-esteem are at great risk at this time when so many losses have incurred: health, friends, relatives, job-status, self-control, and parental roles. The functional world of the older person shrinks and he/she must face society's image of him/her as a burden (Larson, 1990; Mendels, 1993; Mui & Burnette, 1994).

The older person faces a cluster of growing psychological and physical disabilities that may frighten or depress him/her. At the same time, the older person is expected to uphold rather rigid attitudes and expectations, which can cause isolation. It is during these transitional periods that the elderly individual also faces economic deprivation due to retirement or loss of income, which is accompanied by a progressively narrowing range of possibilities for psychological stimulation, and for social interaction. While medical science has made it easier for older people to stay alive, society has done less to make it worthwhile for them to do so (Parmelee, Katz, & Lawton, 1992; Schultz, 1993).

There is wide variation in the patterns of psychological change likely to come with age, all of which add to the barriers to daily living, including barriers to leisure. Many age fully and successfully; others, frightened of the aging process, defend against

these changes and their associated anxieties. Some elderly clients become rigidly conservative, even reactionary, denying changes in the world about themselves, while others become hostile, jealous, and resentful. Some become so preoccupied with themselves that they appear cold and selfish. Still others try to conceal what is happening to them with empty rationalizations. Other may over compensate by trying to act young – a behavior eventually doomed to failure and to precipitate even greater feelings of inadequacy (Barezin, 1972).

According to Butler and Lewis (1977), the elderly population is subject to all the psychiatric disorders that occur in younger populations. Proper diagnostic differentiation of these disorders is important because many suffer from disorders for which the prognosis is good. The less severe psychiatric disorders, such as phobias, alcohol abuse etc… are especially common in this population. The term adjustment reaction of later life classifies a group of reactions to changes in one's situations, such as retirement, death or physical illness (Silverston & Hyman, 1977). Depression is a reversible functional disorder, but is frequently mistakenly diagnosed as senile psychosis or arteriosclerotic brain disease (Birkett, 1972).

According to Parmelee, Katz, and Lawton (1989), of the psychiatric disorders, which affect the elderly, affective disorders, are the most prevalent and the most misdiagnosed. Affective disorders encompass a spectrum of emotions ranging from deep depression to unbounded elation and mania. An elated or depressed mood dominates the clinical picture, but mood is by no means the only problem for the elderly client with an affective illness. Physical symptoms, self-destructive behavior, loss of social functioning and impaired reality testing frequently go hand in hand with depression and mania,

posing difficult and sometimes life-threatening problems for the elderly clients and their families (Bibring, 1953; Klerman, 1978; Lloyd, 1980).

All individuals are subject to mood changes in their daily lives; the potential for elderly individuals to experience these changes increase with decreases in independence and greater reliance on others, as previously indicated. As in so many other illnesses, the etiologies of affective disorders remain a mystery and are the subject of intense research and heated debate (Lloyd, 1980). Diagnosis rests almost entirely on the patient's history, symptoms, and behavior. Elderly clients diagnosed with an affective disorder may exhibit one or more of the following symptoms:

1. Depressed mood
2. Anxiety
3. Sleep disturbances
4. Appetite disturbances
5. Loss of energy
6. Psychomotor retardation
7. Psychomotor agitation
8. Loss of interest in usual activities
9. Feelings of hopelessness and helplessness
10. Suicidal thoughts or acts
11. Sense of guilt, worthlessness, and low self-esteem
12. Difficulty in concentrating
13. Psychosis (American Psychiatric Association, 2001; Burrows, Satlin, Salzman, Nobel, & Lipsitz, 1995; Koenig, 1991)

More than ninety percent of clients who are depressed experience prolonged moods of sadness or discouragement, or a sense of "not caring anymore." A depressed mood usually affects the elderly client's entire mental life; it is pervasive and dominant. Relatively small percentages of elderly clients who are depressed do not experience a depressed mood, but manifest other symptoms (Burrows, et al, 1995; Mendels, 1993).

Most elderly clients who experience anxiety report inner distress with dread, fear or anticipation of danger. In addition to these symptoms, elderly clients report autonomic nervous system dysfunctions such as sweating, palpitations, and rapid pulse (American Psychiatric Association, 2001). Often it is difficult to determine whether an elderly client is experiencing anxiety as a symptom of depression, or if the individual is experiencing a primary anxiety disorder (American Psychiatric Association, 2001; Burrows, Satlin, Salzman, Nobel, & Lipsitz, 1995; Pope & Lipinski, 1978).

The majority of elderly clients experiencing an affective mood disorder experience some form of insomnia. This may involve difficulty falling asleep; often elderly clients' report these episodes occur while ruminating on life events. Others complain of waking up during sleep, often from nightmares, and experiencing great difficulty returning to sleep. Although insomnia is a normal symptom for many elderly clients, hypersomnia is often reported as a chronic problem (American Psychiatric Association, 2001; Cooper, 1993).

MacVane, Lange, Brown, and Zayat (1978) report that a loss of energy is often reported by these clients in absence of exertion, describing feelings of being run down. Such clients may believe they are suffering from another medical ailment. Some elderly

clients experience variation in mood and energy level, meaning their level of energy and activity is worse in the morning hours and improves somewhat throughout the day.

Some elderly clients with affective mood disorders experience psychomotor retardation and psychomotor agitation. Some of the clients experience actual retardation of thought, speech, and action. However, monotonous and slowed speech, fixed gaze, and slowed body movements are all part of this syndrome, which may be severe enough to resemble catatonia. Other elderly clients experience agitation rather than retardation. This involves an unpleasant restlessness or tension, an inability to relax or to sit still. Such clients appear fidgety, and unlike elated clients, show purposeful over-activity. Agitated clients make tension-relieving efforts, such as hand wringing, pacing, nail biting, and hair pulling (American Psychiatric Association, 2001; MacVane, et al, 1978).

The American Psychiatric Association (2001) describes what some elderly clients report as feelings of hopelessness and helplessness and at times loss of interest in daily activities as motivational symptoms. Often, individuals with affective disorders not only experience a loss of pleasure, but also a decrease in motivation, in all areas of life. Work, home life, leisure activities and other pursuits come to seem dull and uninteresting, along with declining ability and drive to complete such tasks. Typically, elderly individuals feel they cannot cope with even the smallest of tasks, including personal hygiene and grooming. Work and household duties can suddenly appear unmanageable to the elderly client with an affective disorder, including getting out of bed, which may take hours.

The symptoms elderly clients often present also include a sense of guilt, worthlessness and low self-esteem. The clients frequently berate themselves for perceived shortcomings that they exaggerate but feel are obvious to others. Their low

self-esteem may vary from mild feelings of inadequacy to severely critical auditory hallucinations (Burrows, et al, 1995; Pope & Lipinski, 1978). Hallucinations and delusions are regularly associated with affective disorders. The content of the hallucinations and delusions is usually consistent with the affective disorder, frequently taking the form of voices that berate the elderly clients for their shortcomings (American Psychiatric Association, 2001; MacVane, et al, 1978).

Finally, according to Burrows, et al (1995) and Cooper (1993), elderly afflicted with affective disorders may be so completely preoccupied with inner thoughts that they have difficulty paying attention to their environment. Elderly clients often complain of poor memory, or of being unable to keep their minds on such pastimes as reading or watching television.

Each of the signs and symptoms discussed above pose as potential barriers to leisure and recreation involvement. It is the responsibility of the Certified Therapeutic Recreation Specialist (CTRS) to identify the most efficient means of assessing the client's level of functioning, which in turn affects leisure functioning. In order for the CTRS to do so, selection criteria of available assessments must include information regarding reliability and validity of the assessment. This information is required for the CTRS to make an informed decision of the most appropriate assessment for his/her client population (Dunn, 1991; Stumbo, 1991). The variations in types of affective disorders afflicting the elderly become almost infinite when considering precipitating factors, family histories, and clinical courses. Some individuals develop affective disorders after obvious traumatic events, others for no apparent reason. Some elderly clients have family trees laden with affective disorders; others have no family history of psychiatric illness.

While other elderly clients experience discrete, limited episodes, others complain that they have been afflicted all their lives (American Psychiatric Association, 2001; Burrows, et al, 1995; Koenig, 1991).

Theories of Aging

According to several theories of aging, elderly individuals age in one or a combination of several ways. To date, three theories of aging are being discussed in the field of gerontology regarding the manner in which elderly individuals proceed through the aging process. Those three theories are Continuity Theory of Aging, Disengagement Theory of Aging and Activity Theory (McGuire, Boyd, & Tedrick, 1996).

Continuity theory supports the idea that successful aging includes maintaining a healthy lifestyle, which in turn promotes decreased psychological and physiological health problems. This continuity theory promotes those patterns of activities, which are established early in life and are refined throughout the elderly individual's life span. Therefore, an explanation of an elderly individual's current patterns of activity would be due to earlier patterns of activities (Atchley, 1988).

Disengagement theory accepts that the gradual loss of physiological and psychological abilities is simply the natural process of aging. Cummings and Henry (1961) report that the process of aging is a natural process of an elderly individual gradually pulling away form social supports and gradually becoming less active. According to this theory, society gives the elderly individual cues on how to behave and interact. Society either indirectly or directly give cues to the elderly individuals that it is

alright and/or expected that they gradually realign relationships, decrease social contacts, and assume a lesser social role, all of which all lead to a loss of status within society as a whole, and within the family unit.

The final theory of aging to be discussed is Activity Theory, which is a supporting theory of the Tracking Behavior Assessment. According to Havighurst and Albrecht (1953), the degree of involvement with the various opportunities or activities elderly individuals have access to and actively participate in will determine in large part their degree of successful aging. The more active elderly individuals are in daily pleasurable activities, the more likely they will maintain a healthy life by maintaining their social roles during their later years. This healthy life includes, but is not exclusive to, characteristics such as a more positive self-image, lower levels of mental and physical disabilities, less social isolation and maintaining their social role. The key, according to this theory of aging, is maintaining an active lifestyle, in moderation. The Tracking Behavior Assessment assesses the ability of an elderly clients with a psychiatric diagnosis to be involved with various activities available to them.

Theories of Human Behavior

The gap that exists between theory and practice is an often-debated topic within the healthcare professions (Sohlberg & Mateer, 1989). The grounding of the Tracking Behavior Assessment (TBA) in theory required an appraisal of the more prominent theoretical foundations applied in the field of therapeutic recreation and gerontology. Of those identified by the author as probable candidates for inclusion, the following came to

the forefront: Piagetian Developmental Stage Theory, Freudian Psychoanalytic Theory, Erikson's Theory of Personality Development, Pavlovian Learning Theory, Skinner's Behavioral Theory, and Bandura's Social Learning Theory. These theories were selected because the group represents the foundation for most of the current theories applied in the mental health arena today (Austin, 1997).

Stage theories and stage theorists often explain development as a series of age-related stages of development. The stages are most often presented as a smooth and continuous process, ultimately producing a productive adult who is able to contribute to society. While the process is virtually always smooth and continuous according to stage theories, failure to develop in any area may result in an individual not reaching the ultimate stage in development (Bandura, 1977).

The resulting failure to achieve the final stage of development, according to stage theorists, will often result in some form of adult immaturity in reasoning, morality, or emotional development much less than the individual's chronological age. Stage theorists such as Erikson, Freud, Kohlberg, and Piaget "... classify people into types only by applying arbitrary rules to coexisting mixture of judgments spanning several "stages" and by categorizing most people as being in transition between stages" (Bandura, 1977, p. 43).

Behavior theories and behavior theorists, specifically Ivan Pavlov and B. F. Skinner explained human behavior through a series of paired experiences generally based on lower species learning. While lower species and humans may have similar biological constraints, systems and methods of learning differ, including specific situational conditions. Both classical conditioning and instrumental conditioning argue that most

complex thoughts and actions are merely a combination of these two simple forms of learning. However, research has shown that the extinguishment of the behavior conditioned, which is manifested due to both of these types of learning, is very abrupt (Bandura, 1977).

This author selected the Social Learning Theory that has as its core concept, individual control on which to base the Tracking Behavior Assessment. Individual control is a primary element, which is lacking in all of the aforementioned theories and is a central element in the field of therapeutic recreation.

Albert Bandura (1977) theorized that human beings are social creatures who learn information and skills through vicarious observation of others and the environment. Bandura proposed that individuals, through observing others, are able to interpret and learn without having a first hand experience. Social learning theory concludes that individuals are able to interpret reinforcements and punishments of others and make corrections for themselves, before actually attempting the skill observed. Social Learning Theory, in addition to vicarious observation, places emphasis on self-regulation and self-evaluation (Bandura, 1977). Four phases of learning make up the primary components of social learning theory: attention, retention, reproduction and motivational phases.

Attention phase of social learning theory is critical to the process of learning through observing a modeled behavior. Unique characteristics of each individual will determine his/her ability to attend to the modeled behavior, characteristics such as interest, self-esteem, urgency, and attentiveness (Bandura, 1977). Social learning theory indicates that the model may regulate the ease at which individuals discern the learning cues. This may be accomplished by adapting and utilizing cues, which are more easily

discriminated by the individual receiving the cues (Bandura, 1977). In other words, if the amount or complexity of the modeling cues is beyond the comprehension of the client, then the modeled behavior should be modified to match the clients abilities (Bandura, 1969). However, if the client appears to be able to comprehend the modeled behavior, but with difficulty, the repeated modeling procedures may be implemented to aid the client in comprehending the subject matter or modeled behavior (Bandura, 1969).

Retention is the second phase of social learning theory, addressing the ability of the client to retain or store the modeled behavior. Encoding of the modeled behavior by the client will lead to greater retention, primarily if the behavior is coded as a verbal statement or a visual image (Bandura, 1977). Practicing the modeled behavior will aid in retention or storage of the behavior; specifically it will assist with producing a verbal statement or visual image, which may at a later period, be retrieved. Bandura (1977), when comparing clients who actively encode modeled behaviors to those who passively observe the modeled behaviors, observed the former to have a better retention rate.

To produce a high degree of accuracy in phase three, the reproduction phase of social learning theory, the modeled behavior must be reproduced repeatedly and overtly. Not only does the reproduction phase allow the client to practice the modeled behavior, it also allows for the evaluation of the accuracy of the reproduction of the behavior (Bandura, 1977). Certain modeled behaviors require more overt practice than others, specifically any behavior which involves a motor skill. All aspects of repeating or reproduction of modeled behaviors have benefit; however, modeled behaviors requiring application of motor skills and/or equipment improve with each reproduction because of the further development of the mental image (Bandura, 1977).

The final phase of Bandura's social learning theory to be discussed here is the motivational phase. According to social learning theory, modeled behaviors which have been observed will only be reproduced if the clients are positively reinforced to do so. Reinforcement of the observed behavior may either be directly reinforced, or reinforced through vicarious observation of others being rewarded or not rewarded, for the observed behavior (Bandura, 1977).

The cueing technique, which is referred to as reinforcement in social learning theory, does play a role in learning modeled behaviors. However, the role is primarily an "antecedent rather than a consequent influence" (Bandura, 1977, p. 37). Reinforcement as applied in social learning theory is not necessary for learning to take place. Rather, it is a catalyst for reproduction of the modeled behavior. Bandura states, "In social learning theory, reinforcement is considered a facilitative rather than a necessary condition..." (Bandura, 1977, p.37).

The central aspect of social learning theory is self-regulation, which is a process of observing, judging, and self-determining rewards (Bandura, 1977). This three-step process is of importance because it places the client or individual in control of the process of incorporating observed modeled behavior into one's own scheme. Step number one the individual performs the observed behavior while simultaneously recording his/her own performance often referred to by Bandura as "self-performance" (Bandura, 1977).

The next component of self-regulation is judging. This involves comparing one's own performance to an established standard. The standard may be a rigorously tested one, or one chosen arbitrarily by the client/individual. Once the comparison or judging is completed, the individual must then determine how he/she performs related to the

selected standard (Bandura, 1977). After the individual determines how his/her performance compares to the selected standard, the individual then determines the type of reward he/she will receive, what is termed self-determined consequences (Bandura, 1977).

Bandura (1977) reports that self-determined consequences may be positive or negative. The individual may determine to reward his/herself or punish his/herself, based on the comparison to the standard, and how poorly or how well he/she interprets the performance. Individuals who reward his or her own behavior will have significantly superior levels of performance than those who do not (Bandura, 1978).

Another aspect of Bandura's Social Learning Theory is client control and vicarious observation of modeled behaviors. Bandura's theory of social learning promotes that clients are able to learn new, or relearn old behaviors, by observing a model demonstrating the desired behavior (Austin, 1997; Bandura, 1977). The client is in control of how, when and if the modeled behavior is assimilated into his/her own scheme of functioning. This means that the client is able to observe the intervention and observe the results of participation of recommended interventions without first having to physically go through the steps (Bandura, 1977).

After first observing the modeled behavior, the client, not the therapist, determines the value of making the behavior a part of his/her behavior (Bandura, 1977). This mode of providing intervention is very similar to the Leisure Ability model of service delivery for therapeutic recreation (Peterson & Gunn, 1984). It is during this process that the therapist is able to assist the client by providing reinforcements as the catalyst for reproduction of the modeled behavior (Bandura, 1977). When the client

determines a modeled behavior valuable enough to include in his/her pattern of behavior, Social Learning Theory provides the therapist an established framework in which to allow the client opportunities for such incorporation. As the client becomes more proficient at the modeled behaviors, the therapist is able to offer and provide increasing client independence (Bandura, 1977).

To provide a bases for the various continuums which comprise the variety of symptoms of psychiatric disorders afflicting the client who is elderly, Anne Mosey's Three Frames of Reference for Mental Health, was utilized as a guide to the development of the continuums of function and dysfunction (Mosey, 1970). Mosey references establish a connection between theory and practice allowing for greater generalizability for the interventions provided in a treatment setting. Mosey admits that the framework is a combination of many theories that are "logically compatible" (Mosey, p. vi, 1970). Although Mosey has several components of theories from a variety of areas, the basic conceptual foundation for function/dysfunction remains true. "Theoretical concepts determine the paradigms used to collect evidence (Bandura, p. vi, 1977)" which in turn shapes the delivery of services provided.

Mosey (1970), describes her work, Three Frames of Reference for Mental Health, as an eclectic combination of the dominate theories which attempt to explain psychological dysfunction. The three frames of reference referred to are titled Object Relation Analysis, Action-Consequence I & II, and Recapitulation of Ontogenesis I & II. Each of the frames of references are theoretically based, offer continuums of function-dysfunction, an evaluation, and postulates for change and a treatment process.

Components of the Tracking Behavioral Assessment

The following is a theoretical discussion regarding the components, which comprise the five domains of the Tracking Behavioral Assessment. All five, in one manner or another, pose as potential barriers to leisure/recreation involvement.

Emotional Domain

The emotional domain for purposes of the TBA consists of the components titled frustration tolerance, attitude, affect, and self-esteem.

Frustration Tolerance

Living in a modern society provides considerable frustration without the occurrence of traumatic or life altering events. Numerous stressors exist in the every day lives of the elderly. Psychologists believe that aggression is an inborn part of human nature, but they do not agree that it stems from an ever-present instinctual need to aggress. Instead, they believe that aggression is a natural reaction to the frustration of important motives. This suggests that an elderly individual who is removed from a familiar environment or who is presented with other stressful situations, may act out or withdraw in response to the stimulus. If an elderly individual is given the opportunity to express or diffuse this built up frustration through a socially acceptable outlet, it becomes less destructive to the personality. However, if this frustration is suppressed and not given

an outlet, it can and most often will result in prolonged discomfort and/or contribute to psychophysiological illnesses (Dollar, Doob, Miller, Mowrer, & Sears, 1939).

Frustration tolerance is analyzed by the TBA as the client's ability to tolerate participation in various types of tasks. Dollar et al. (1939), agree that aggression originates as an inborn part of human behavior, which is brought about because of various stressors present in society, and is often expressed as frustration. They continue by stating that individuals react to the various sources of stress differently, depending upon individual experiences and skills (Dollar, et al., 1939). Bandura argues that when individuals are not comfortable with the situation, setting, and/or individuals, or outside forces, participation in the activity and the ability of the client to attend and remain focused may be impaired. Therefore, if a client continually suppresses and/or denies the frustration, psychological dilemmas most likely will occur (Bandura, Grusec, & Menlove, 1966).

Anne Mosey delineates frustration tolerance as a sub-skill of the Drive-Object Skill. Mosey (1970) discusses the need of individuals "... to invest aggressive drives into external objects" (p. 191). This is the individual's ability to express ones anger in constructive ways, a process that must be learned and practiced. According to Mosey, individuals learn to manage their frustration through a series of learning experiences, eventually harnessing this aggressive drive. She recommends that clients are systematically exposed to situations that gradually increase their potential for frustration, which in turn allows them opportunity to gradually master this area of functioning.

Attitude

The elderly client does not need to like the therapist and conversely the therapist does not need to like the client. However, to work effectively, the client does need to respect the therapist and the significance of the treatment interventions (Rogers, 1951). The elderly client does not need to believe in the intervention simply to be willing to try it. It is acceptable for the client to be doubtful or skeptical at first; however, if this attitude prevails, an investigation into the causes should be conducted. Attitudes are not chiseled in granite; they can change after formation.

Attitudes are pivotal concepts and are of special interest because other people influence the elderly's attitudes and often reflect their behavior towards others. Knowledge of an elderly client's attitude toward treatment in vitally important because often attitudes will shift to be consistent with behavior (Festinger, 1957). Festinger's cognitive dissonance states that inconsistencies between attitudes and behavior are uncomfortable, so people will change their attitudes to reduce this discomfort. Other theorists have explained the reason for this shift of attitude to be consistent with behavior with theories similar to Festinger. The important concept here is that attitude can be a predictor of behavior (Festinger, 1957).

Attitude is a driving dynamism that promotes learning. Attitudinal barriers may be dismembered, given time with a systematic approach (Mosey, 1970). Social learning theory assumes that behaviors, which are viewed as valuable to the observer, are the only behaviors which will be reproduced. Observers must place value and must have a positive attitude toward the observed behavior before it is reproduced (Bandura, 1977). Given that

individual's willingness to participate and enter a nurturing therapeutic relationship regulates individual successes and failures, attitude must be evaluated on a continuum of willingness to participate (Mosey, 1970).

Affect

Descriptions of affect began with Hippocrates. The term melancholia is usually attributed to him, as is the notion that it results from the influence of black bile and phlegm on the brain (Lewis, 1967). About five hundred years later, early in the second century A. D., Aretaeus of Cappodocia recognized and recorded an association between the affect of individuals with melancholia and mania: "Those affected with melancholia are not everyone of the affected according to one particular form; they are either suspicious of poisoning or flee to the desert from misanthropy, or turn superstitious, or contract a hatred of supervenes... the patients are dull or stern, dejected or unreasonably torpid, without any manifest cause... they also become peevish, dispirited, sleepless, and start up from a disturbed sleep. Unreasonable fear also seizes them, if the disease tends to increase... they complain of life, and desire to die" (Kendell, 1968).

Affect is the feeling tone accompanying expressed ideas. Affect is the specific emotions that may accompany certain ideas (anger, amusement). It is important to note any inappropriate affect or apparent dissociation of affect from content (appearing sad when discussing a pleasant occurrence; laughing when discussing a misfortune; expressing anger when reporting something someone said which was apparently a compliment). A specific type of inappropriate affect sometimes seen is "la belle

indifference" (a bland attitude towards symptoms and disability produced by them). A normal mood shows some fluctuation in the course of an interview, but frequent marked fluctuations are noted as a lability of affect. The term "flatness of affect" is applied when no fluctuations are observed. An assessment of the range of emotions that an elderly client is capable of experiencing will indicate whether the prevailing mood is depressed, or defused and, if so, to what extent, within normal limits, or elevated (Lewis, 1943; Rapaport, Gill, & Schafer, 1968).

According to social learning theory, affect is closely related to attitude as a component of assessment (Bandura, 1977). According to Mosey (1970), individual expressions of emotions vary according to situation and circumstance; however, the expression should be congruent with the situation for proper evaluation. Clients of all types present themselves with varying degrees of expression (affect); it is the therapist's responsibility to place these expressions in the proper position on the continuum of affective expression, determining whether or not the expression is appropriate for the situation (Mosey, 1970). Individuals must be willing and able to observe and reproduce valued behaviors. Therefore; during the assessment, an accurate assessment of his/her affect could potentially give insight into potential success (Bandura, 1977).

Self-Esteem

A healthy elderly individual has self-respect. In part because of the role of projection in interpersonal relationships, it is not easy to respect, admire, or trust others unless one can respect and trust one's self. The healthy elderly person is relatively free of

feelings of inadequacy and inferiority. However, the self-concept is not based upon denial of limitations, but on accepting them, correcting them if possible, and utilizing the most adaptive capacities available. The healthy elderly individual's self-esteem is based upon multiple rather than single qualities, at least some of which are of a relatively enduring character. Beauty and/or physical strength can be sources of self-esteem and are useful, but they do not last. Other qualities and abilities must be there to take their place in maintaining self-esteem when they cease to exist (Beiser, 1971; Grinker & Werble, 1974).

Bandura (1977) reported those individual characteristics of the client determine to a great extent the ability of the client to benefit from various models which exist in the environment. Elderly clients who experience a sense of low self-esteem often berate themselves for perceived shortcomings that they exaggerate, but feel are obvious to others. Such clients are unable to realistically evaluate their own performance at daily tasks. Their low self-esteem may vary from mild feelings of inadequacy to severely critical auditory hallucinations. Over-optimism, overconfidence, and inflated self-esteem, instead of feelings of inadequacy, often impair judgment (Klerman, 1978; Lloyd, 1980).

Mosey defined esteem needs as wanting and receiving respect from others; to do so requires the individual to place him/herself on a continuum of self-esteem. This continuum ranges from high esteem (positive comments about self and positive perspective of others) to low esteem (negative comments regarding self and negative comments from others). Placement of individuals on this continuum will allow arrangement of individuals in treatment sessions designed to assist with improvement of conditions as necessary (Mosey, 1970).

Physical Domain

The physical domain for purposes of the TBA consists of the components titled ambulation balance, coordination (gross motor skills and fine motor skills), and endurance with completion of leisure tasks.

Ambulation

Human gait is a complex task, the fundamental objective of which is to move safely and efficiently from one point to another. Because of inherent differences in body proportions, level of coordination, motivation, and other factors, each person's gait pattern is unique. Yet, because everyone has the same basic anatomic and physiological makeup, all healthy elderly accomplish human locomotion in a similar manner (Cappozzo, 1984; Rowell, 1989). The cyclical and highly automated movement pattern involves rhythmic, alternating motions of the turn and extremities. Cycle-to-cycle variations in gait movements are slight (Winter, 1984; Winter, 1987).

Functional locomotion is concerned with simultaneously solving five basic motor problems:

1. Generation of mechanical energy for controlled forward progression
2. Absorption of mechanical energy to minimize shock or to decrease the forward progression of the body
3. Maintenance of a stable upright position
4. Support of the upper body on the lower limb during the stance phase

5. Control of the foot trajectory to ensure appropriate articulation with the support surface during the stance phase and clearance of the foot during the swing phase (Cotes, 1960).

Clinicians routinely do informal visual analyses of gait. Careful, systematic visualization can yield some useful descriptive information, especially if video technology is used (Cappozzo, 1984). According to social learning theory, individuals must be able to reproduce the behavior vicariously observed before reproduction, long-term learning and integration may be accomplished (Bandura, 1977).

Anne Mosey (1970) indicated that individuals exist as a delicate balance of all four domains of behavior; when one domain is unbalanced or malfunctioning, the remaining domains become at risk of deteriorating. Therefore, a determination of the elderly client's ability to ambulate within the environment is desirable. Depending on treatment milieu, discharge setting and progress actualized (for example progressing from requiring total assist for mobility to requiring minimal assist for mobility) will influence progress during treatment and maintaining levels after discharge (Mosey, 1970).

Balance

Balance can play an important role in the assessment of an elderly client. Balance involves the integration of several inputs (e.g., visual, proprioceptive, and vestibule systems) by the brain that are analyzed to allow a proper action. For example, in standing, the body is inherently unstable, and only the integration of input from various sources enables the elderly client to maintain proper standing posture (Rowell, 1989).

Similar to ambulation, individuals must be able to reproduce the observed behavior before long-term integration of the behavior (Bandura, 1977). The ability of an elderly client to maintain his/her balance is influenced by many components. What is important to determine is what type of assistance and if the individual requires assistance to maintain their upright position (Mosey, 1970).

Coordination

Coordination can be viewed as the whole movement pattern relating to a specific controlled movement; it is the ability to put everything together at the right time, with the right force, and the right speed. It is not generally considered to be under direct cortical control. It does, however, include measures of performance and such things as speed, efficiency, flexibility, adjustability, and timing (Coyle, Costill, & Lesmes, 1979). It therefore involves not only the motor and sensory systems, but also cerebral functions such as intelligence, reasoning ability, judgment, alertness, concentration, motivation, and personality. The cerebellum usually is considered the structure most intimately involved in skillful motor execution and the source of pathology when coordination develops (Coyle, Costill, & Lesmes, 1979).

The determination of an elderly individual's fine and gross motor skills will assist in designing programs structured for success (Bandura, 1977). Coordination is grounded in the motor reproduction phase of social learning theory, and the determination of the elderly individual's abilities will aid in completion of this phase of modeling, according to social learning theory. Many tests, usually involving speed and accuracy of

performance on a specific set of tasks, have been designed to measure coordination. These measurements, however, are generally quite task specific, so that results on one task do not necessarily carry over to another. A general test of a person's coordination is difficult to create. Coordination is one of seven adaptive skills that Mosey identified as necessary for all elderly clients to have in order to maneuver through daily activities. This sub-skill according to Mosey (1970), should be developed to such a level that the elderly individual is able to function within his/her environment. This sub-skill, as most, may be evaluated on a continuum of ability; one method of doing so is based on amount of assistance required to complete individual tasks.

Endurance with Completion of Leisure Task

Muscle endurance can be defined as the ability to produce work over time or the ability to sustain an effort (Knuttgen, 1976). Endurance with completion of leisure tasks is another component of the TBA, which finds its origins in the motor reproduction phase of modeling indicated in Bandura's social learning theory. Endurance can be measured in several ways, depending on the particular-kind of activity studied. Anaerobic endurance is measured under simulated anaerobic conditions with high-intensity or isometric activity decreasing the oxygen availability. Aerobic endurance must be measured under conditions that use aerobic metabolism, such as low-intensity dynamic exercise that avoids anaerobic components. Fatigue is the inability to continue generating further force, or the loss of endurance. Although it begins with the onset of the activity, it can be defined operationally as occurring when a certain percentage decrease from maximum

force occurs, or further repetitions cannot be performed (Bigland-Ritchie & Woods, 1984). The term fatigue can generally be used to refer to tiredness and inability to continue with an activity. Fatigue may occur at many levels in the motor system. Evaluation of an elderly client's energy/activity level, and then placing that measurement on a continuum, will aid in determining his/her ability to participate and benefit from therapeutic interventions (Mosey, 1970).

Cognitive Functioning Domain

The cognitive functioning domain for purposes of the TBA consists of the components titled orientation, concentration/attention span, following directions, decision-making, and memory.

Orientation

A unique component of social learning theory is the requirement of a client to apply observed modeled behaviors to situations occurring in ordinary life situations (Bandura, 1977). To be able to achieve this application, clients must process ability of distinguishing reality from non-reality and/or obtain the necessary skills/strategies to accomplish this task. Orientation of an elderly client generally can be determined by inquiring as to their ability to correctly distinguish time, place, person, and/or situation. This is commonly referred to as orientation times one, two, three, or four, in addition to

identifying to which condition the elderly client maintains orientation (Donnelly, Rosenbert, & Fleesson, 1970; Nicholi, 1978).

Awareness of time, place, person, and situation are basic cognitive capacities that remain intact even in many severely disturbed elderly clients. Disturbances in orientation are common in delirium, dementia, and drug-induced psychosis, but are less commonly found in elderly clients with acute affective illnesses and schizophrenic disorders. Elderly clients can be evaluated for orientation with a few simple questions:

1. Time – Time of day (approximate), day of the week, season, year
2. Place – Building (hospital) street, town
3. Person – Identification of self and CTRS-doctor, nurse, etc.
4. Situation – Why is elderly client in the hospital (Donnelly, Rosenbert, & Fleesson, 1970; Nicholi, 1978)

A disorder of orientation implies that to some extent the elderly person has a lack of awareness of time, place, person, or situation. Some elderly clients who are disoriented may not know where they are or how they came to the facility. Others will not recognize family or friends or may be unable to give familiar information about their own personal identity. Disorientation usually becomes more severe in twilight or darkness, when sensory stimulation is diminished, visual cues are limited, and fewer people are available to validate perceptions. Brain dysfunction results in impaired intellectual function and poor judgment which, coupled with sensory deprivation, can markedly increase confusion. Confusion may increase in a situation of overestimation as well as a crowded emergency room. Some elderly clients benefit from being taken to a quiet room where they are not bombarded by sensory input. Major difficulties in orientation are usually

symptoms of advanced or severe brain dysfunction, but minor problems in orientation and transitory periods of disorientation may occur in milder cases (Stephens, 1969).

According to Mosey (1970), elderly individuals must be able to organize thoughts and event which occur in daily activities; this task is closely related to the ability to distinguish time, also situation etc... In addition, Bandura (1977) indicates that individuals who learn by vicarious observation are required to distinguish the model from others present in the environment.

Concentration/Attention Span

Concentration/attentions span plays a central role in social learning theory's process of observational learning. As the client's ability to attend to a modeled behavior increases, so does the client's potential of reaping benefits from that intervention. Concentration and attention span is a component of what social learning theory titles the attentional process of learning through modeling (Bandura, 1977). So, rooted in this concept are the origins of the assessment component concentration/attention span. Concentration/attention span has been defined as an individual's ability to focus on a stimuli or set of stimulus long enough to gain knowledge or ability from it (Donnelly, Rosenbert, & Fleeson, 1970; Nicholi, 1978). The division of time into minutes of a client's ability to attend or concentrate to a task/modeled behavior was devised to allow for separation of abilities of various clients. This allows for placement of clients in the most effective treatment framework available to them.

Concentration/attention span is the ability to focus and maintain one's attention on the desired set of stimuli. A number of disorders can disturb this capacity, but it is most common in depression, anxiety, and psychosis. Gross disturbances in concentration will affect the elderly client's ability to pay attention and answer questions during the interview (Donnelly, Rosenbert, & Fleeson, 1970; Nicholi. 1978). Mosey (1970) reports that individuals must be able to attend to environmental stimulus to learn from and about behaviors. Therefore, it is a consensus that individuals must be able to attend to tasks for learning to take place.

Follows Direction

The component of the TBA labeled follows direction is anchored in the retention processes of Bandura's social learning theory. As it is stated in the retention process, individuals must be able to repeat and follow directions observed when the model is no longer present to do so (Bandura, 1977). Therefore, it is imperative that the individual's abilities to complete the task of following direction are evaluated upon admissions to the treatment facility (Mosey, 1970).

Bandura (1977) states that the verbal coding and cognitive processes of forming information into usable and retrievable bits of information require verbal and visual information. The ability of an individual to retrieve and follow directions is largely based on how efficient the information was originally processed. Mosey (1970) places items such as following direction on a continuum of function/dysfunction.

Decision-Making

Decision-making includes the ability to make a critical assessment of various possible courses of action and make a prudent choice among them. It can be impaired by difficulties in processing information, by impulsivity, or by a variety of other factors including low self-esteem. One can assess this quality based on the ways in which the elderly client deals with various problems in living, or may evaluate responses to a series of test situation (Levin, O'Donnell, & Grossman, 1979; Strub & Black, 1985).

According to Bandura (1977), individuals, after observation of a particular behavior, make a decision whether or not the observer would benefit from incorporating the behavior into their repertoire of behaviors. Through the observation of others' behaviors, observers can judge how and if they would benefit from reproduction of this process. Mosey (1970) explained that individuals make decisions on a continuum of information and ability. She discussed that as individuals improve in cognitive functioning, their ability to make informed decisions increases and those whom stall or stagnate in their development cease making progress along this continuum.

Memory

Memory function is generally divided into three categories: immediate, recent, and remote. Much can be learned about memory during an interview process. If a memory impairment is observed, note the elderly client's reaction to the deficit and any efforts to cope with it. The efforts may include denial – acting as if the deficit did not

exist; confabulation – inventing stories about situations or events that are not remembered, and circumstantially – "beating around the bush" in an effort to mask the memory deficit. Clients who recognize having a memory impairment may react to questions with anxiety, depression, or hostility (Katzman & Terry, 1983).

Many aspects of memory remain relatively intact during normal aging, including immediate, recent, and remote. Age-related impairments, however, have been documented consistently in tasks involving episodic short-term memory (Katzman & Terry, 1983). There is evidence that the latter difficulties with short-term memory experienced by older people are related to slowed central processing. What these investigations indicate is that older individuals are capable of new learning, but at a slower rate (Schuman, Beattie, Steed, Merry, & Kraus, 1981).

The ability of individuals to recall information, i.e. modeled behaviors, is paramount in being able to retain those behaviors for incorporation into one's own behaviors (Bandura, 1977). Mosey (1970), placed this component of the retention process on a continuum of ability to remember or recall observed behaviors. The individual's ability or placement along this continuum will aid in determining how and to what degree if any the behavior is internalized.

Socialization

The socialization domain for purposes of the TBA consists of the components titled frustration dyadic interaction and social interest.

Dyadic Interaction

To engage in social interaction, individuals first must be able to interact on a one to one basis without experiencing extreme anxiety and distress. Mosey (1970) established a continuum of ability or willingness to interact. She detailed the abilities of individuals to interact on each level, originating with an individual's abilities to interact at what she titled the association relationship, or interaction between two individuals without concern for the outcomes of the interaction. She then places each of the types of interaction on a scale or continuum leading from the least threatening to the most stressful or difficult to maintain (Mosey, 1970).

According to Bandura (1977), it is this ability to interact and process input from others which is a primary determinate of which modeled behaviors will be internalized and maintained. It is also Bandura's postulate that individuals must obtain and maintain these interaction skills of initiation, responding, and maintenance of conversation to benefit from observing behaviors. Because without these skills, individuals will not be able to maintain and nurture acquaintances for which to observe (Bandura, 1977)

Social Interest

The ability of individuals to interact at various levels of social contact is grounded in the attentional process of social learning theory. Individuals with whom one regularly associates will determine behaviors, which are modeled and observed (Bandura, 1977).

How and why one associates with various individuals is somewhat determined by their ability or inability to interact on both an individual level and on a group level.

Individuals must be able to interact on an individual level before being able to effectively interact on a group level. Mosey (1970) discussed the process of leading individuals from a reclusive lifestyle to at minimal feeling comfortable being in the presence of others, ultimately with group interaction as a long-term goal. To provide individuals with the most effective intervention setting, their ability of interaction should first be ascertained. The process of gradually guiding individuals toward group interaction is assessed on a continuum. Mosey assessed the individual's interaction skills initially on a one to one level, gradually evaluating their skills at the highest level she titled a mature group. Participants of a mature group are able to interact with a heterogeneous population, are flexible with occupying various roles of the group, and are able to balance tasks accomplished by the group and to the satisfaction of other group members.

Leisure Life-Style

The leisure life-style domain, for purposes of the TBA, consists of the components titled participation, leisure life-style and coping skills and adaptations.

Participation

According to Bandura (1977), individuals must actively participate after the observation of a modeled behavior for it to be retained and made part of the individual's repertoire of behaviors. The motivational process of social learning theory indicates that individuals do not internalize all observed behavior, and it is only those which the individual defines as valuable and worthwhile for the motor reproduction process which are retained. One may gauge the value an individual has placed on the observed behavior based on his/her willingness to participate.

Individuals chose to participate based on the need or desire to do so (Mosey, 1970). Depending on individual needs, wants, and desires, participation in a chosen activity will wane and vary. Motivational determinates will calibrate individual participation levels in any chosen activity. Those levels of participation may again be placed on a continuum of participation, initially not participating to participating without prompting.

Leisure Pursuits

Leisure has been defined in many ways. Some authors define leisure as time or periods of time devoted to the pursuit of leisure. This time allocation is subtracted from other obligated time such as work, travel to work, eating in a non-social setting, and activities of daily living (Godbey & Parker, 1976). Another definition of leisure addresses the quality of the activity that has been chosen for participation. The activities chosen for

leisure pursuits are seen to affect both mental and spiritual perspectives of the participants (Piper, 1952). Authors then combine both of these previous explanations of leisure to form one explanation which views leisure and leisure pursuits as a combination, which equals what, is termed leisure (Godbey & Parker, 1976). Leisure may be viewed as either the free time, which is occupied during leisure activities, or the activities themselves that are participated in during free time; either way an assessment of leisure involvement will guide interventions provided in the clinical setting (Godbey & Parker, 1976; Austin, 1997).

Leisure can and does provide numerous opportunities for exposure of individuals to various modeled behaviors; it provides the medium, which allows for apparently non-invasive intervention (Austin, 1997; Carter, Van Andel, & Robb, 1995; O'Morrow, 1976). According to Bandura (1977) opportunity for change exists as a result of exposure to these modeled behaviors. Depending on the interests of the individual client selection of activities, the choices for exposure are determined and eventually community reintegration is planned and long-term changes may take place (Austin, 1997; Carter, et al. 1995).

Then, according to Mosey (1970), individual progress regarding dyadic interaction, social interaction, and physical functioning may occur. If this occurrence does take place, it is along a continuum of change. Therefore, it is of utmost importance that individual interest and current participation levels regarding leisure interests and activity are addressed to provide effective and long lasting interventions (Austin, 1997; Bandura, 1977; Carter, et al. 1995).

Coping Skills and Adaptations

The ability of an individual to cope with a situation will depend largely on his/her ability to adjust and tolerate what is occurring, or what has occurred (Watts, & Bennett, 1983). A variety of activities, social relations, and items assist with individual abilities to handle or cope with stressful situations. These items, relations, and activities allow for reliable predictive frameworks that allow for stability during a crisis or stressful situation (Cobb, 1976).

However, if the type of coping mechanism employed by the individual is unhealthy or not beneficial, it should be abandoned and replaced with a healthy and beneficial mechanism (Heller, 1979). Mosey (1970) emphasized the importance of placing evaluative information on a continuum, a continuum that represents various levels of having or not having and effectiveness or ineffectiveness of the component. In this instance, a continuum of not having coping mechanisms too effectively applying coping mechanisms will cover potential components in between i.e. ineffective, unhealthy, and knowledge of with out applying (Heller, 1979).

According to social learning theory, individuals needing to acquire new behaviors, i.e. coping mechanisms and adaptations to behaviors, could benefit from exposure to models with effective coping mechanisms and adaptations (Bandura, 1977). Placing individuals in need of assimilating effective coping mechanisms in situations that would lead to direct observation of individuals currently with such behaviors, could prove beneficial (Bandura, 1977). However, before such placement, assessment of current mechanisms should be conducted (Mosey, 1970).

Foundations for the Tracking Behavior Assessment Development

The development of the Tracking Behavior Assessment (TBA) was based upon a theory of aging, a theory of human behavior and learning, and the general psychiatric symptoms of the gero-psychiatric population. The selection of the theories; Bandura's Social Learning Theory, Havighurst's theory of aging Activity Theory, and Anne Mosey's Three Frames of Reference for Mental Health which are client-centered approaches, was due to how each theory mirrors the philosophy of the profession of therapeutic recreation, and the Leisure Ability Model of service delivery, which is the most widely applied model within the profession (Bullock, 1998; Mobily, 1999; Stumbo & Peterson, 1998). The Leisure Ability Model of service delivery places at the center of client well being, increasing client control. The model places clients receiving psychiatric therapeutic recreation interventions on a continuum of care which allows for a gradual increase in control by the client of his or her treatment. The ultimate goal of this model is for the client to realize complete leisure independence (Peterson & Gunn, 1984).

Activity theory places at the center of its theory of aging that the elderly individual can bring about self change based on his/her level of activity/social involvement. The theory also implies that some, if not all, symptoms of disorders may be alleviated or reduced in severity simply by increasing the activity level/social involvement of the client, thereby promoting successful aging (Havighurst & Albrecht, 1953).

When selecting a theory of human behavior and learning, Bandura's Social Learning Theory was chosen due to its properties of individual control and selection.

Bandura's Social Learning Theory and Havighurst's Activity Theory both are based on individual control and selection of behaviors, which allow the elderly individual choices in his/her therapeutic recreation treatment plan. The elderly client is able to control in varying degrees, according to activity theory and social learning the behaviors and activity levels that are incorporated into their individual patterns of activity/behavior. These in turn affect the various symptoms afflicting the gero-psychiatric population (Bandura, 1977; Havighurst & Albrecht, 1953).

To provide a basis for the various continuums which comprise the variety of symptoms of psychiatric disorders afflicting the client who is elderly, Anne Mosey's Three Frames of Reference for Mental Health was utilized as a guide to the development of the continuums of function and dysfunction (Mosey, 1970). Mosey's references established a connection between theory and practice, allowing for greater generlizability for the interventions provided in a rehabilitation setting. Mosey admitted that the framework is a combination of many theories that are "logically compatible" (Mosey, p. vi, 1970). Although Mosey had several components of theories from a variety of areas, the basic conceptual foundation for function/dysfunction remains true. "Theoretical concepts determine the paradigms used to collect evidence" (Bandura, 1977, p. vi), which in turn shapes the delivery of services provided.

Mosey (1970), described her work, *Three Frames of Reference for Mental Health*, as an eclectic combination of the dominate theories which attempt to explain psychological dysfunction. The three frames of reference referred to are titled Object Relation Analysis, Action-Consequence I & II, and Recapitulation of Ontogenesis I & II. Each of the frames of references are theoretically based, offer continuums of function-

dysfunction, an evaluation, and postulates for change and a treatment process. Mosey's work as with the works of Peterson and Gunn, Bandura, and Havighurst place the client in some degree of control over his/her treatment with the ultimate goal of the client assuming complete responsibility regarding decision making as to the next appropriate step and the therapist gradually relinquishing control to the client.

Tracking Behavior Assessment

The Tracking Behavior Assessment (TBA) is a theory-driven assessment modeled after Bandura's Social Learning Theory, Havighurst's theory of aging Activity Theory and Anne Mosey's Three Frames of Reference for Mental Health. The intent of structuring the TBA around Bandura's Social Learning Theory, Havighurst's Activity Theory, and Anne Mosey's Three Frames of Reference for Mental Health was to provide a set of principles, which would anchor the assessment in an established postulate. "Theoretical concepts determine the paradigms used to collect evidence (Bandura, p. vi, 1977)" which in turn shapes the delivery of services provided.

Human behavior, according to Social Learning Theory, is an uninterrupted reciprocal interchange between environmental, behavioral, and cognitive influences. The fundamental processes which compose this theory include: Attention Processes embodying distinctiveness, affective valence, complexity prevalence, and functional value; Retention Processes embodying symbolic coding, cognitive organization, symbolic rehearsal, and motor rehearsal; Motor Reproduction Processes embodying physical capabilities, availability of component responses, self observation of reproductions, and

accuracy of feedback; Motivational Processes embodying External reinforcement, vicarious reinforcement, and self-reinforcement (Bandura, 1977). Social Learning Theory incorporates motor skills, memory, motivation, and attention, thus spanning and improving behavioral and cognitive frameworks in regards to traditional behavioral models (Bandura, 1977), which are components of the TBA.

Summary

In summary, an extensive review of literature concerning therapeutic recreation assessment found that no comprehensive therapeutic recreation instrument to assess functional abilities of elderly clients with psychiatric diagnoses had been published. Accordingly, the development of an instrument to assess the functional needs of these clients was undertaken, basing the development of the TBA upon Havighurst's Activity Theory, Bandura's Social Learning Theory, and Ann Mosey's Three Frames of Reference for Mental Health. The purpose of this investigation was the testing of the reliability, validity, and usability of this initial version of the TBA and to report recommendations for further development and research to assist with fine-tuning the instrument.

CHAPTER III

METHODOLOGY

The purpose of this study was to identify the validity, reliability, and usability of the Tracking Behavior Assessment. This chapter is a description of the proprieties, which were used for selection of the sample, collection of the information, and analysis of the information collected. The following sections describe:

1. Statement of the Problem and Research Questions
2. Description of the Subjects
3. Description of the Tracking Behavior Assessment
4. Design of the Experiment
5. Statistical Analysis to be Applied

Statement of the Problem and Research Questions

The purpose of this study was to establish the validity, reliability and usability of the Tracking Behavior Assessment (TBA) and to compare the findings of a controlled study and the findings of a study of application within field. The questions to be answered were: What is the content validity of the Tracking Behavior Assessment? What is the internal consistency of the TBA? What is the inter-rater reliability of the Tracking

Behavior Assessment? What is the intra-rater reliability of the Tracking Behavior Assessment? What is the usability of the Tracking Behavior Assessment?

Description of the Participants

The pool of participants for testing the content validity of the Tracking Behavioral Assessment consisted of fifty Certified Therapeutic Recreation Specialists. All were selected from universities and treatment facilities throughout North America. All are members of the American Therapeutic Recreation Association Treatment Network, with expertise in working with the geriatric psychiatric population. A signed informed consent form (see Appendix A) was obtained from the Certified Therapeutic Recreation Specialists.

The pool of participants for testing the reliability of the Tracking Behavioral Assessment consisted of ten Certified Therapeutic Recreation Specialists. A signed informed consent form was obtained from each of the therapists meeting criteria selected from treatment facilities within the state of Oklahoma with clinical experience in the area of provision of services for the gero-psychiatric population (see Appendix A).

The pool of participants for testing the usability of the Tracking Behavioral Assessment consisted of seven Certified Therapeutic Recreation Specialists selected from treatment facilities within the state of Oklahoma. All had clinical experience in the area of provision of services for the gero-psychiatric population. A signed, informed consent form (see Appendix A) was also obtained for this group of Certified Therapeutic Recreation Specialists.

Description of the Instrument

The Tracking Behavioral Assessment (see Appendix C) contains nineteen components, grouped to represent five distinct domains of functioning. The five domains and the components of each are as follows: 1) Emotional – frustration tolerance, attitude, affect, and self-esteem; 2) Physical – ambulation, balance, coordination (gross motor), coordination (fine motor), and endurance; 3) Cognitive Functioning – orientation, concentration/attention span, follows directions, decision making, and memory; 4) Leisure Life Style – participation, leisure patterns, and coping skills and adaptation; 5) Socialization – dyadic interaction, and social interest.

Recommendations by Cella and Tulsky (1990) for measurement of clients were considered in the development of the TBA. Their recommendations included a focus on the client's abilities, provision for repeated assessments, and communication of concise and relevant information to the treatment team. They also suggested that a measure should contribute to patient care without posing a burden to patients, families and staff, yet still be sensitive enough to meet the needs of research.

Further, development of the TBA was guided by a rehabilitative perspective of functional status within the domains of impairment and disability as defined by the World Health Organization in 1980. Functions were viewed by the TBA developers as activities or components of activities, which enable clients to interact with people and move within their environments to achieve meaningful goals. Activities involved daily tasks, such as use of coping mechanisms, mobility within the environment, leisure and social abilities. Components of activities involved physiological and psychological phenomena impairing

functioning, such as ability to interact, self-esteem, mobility, coordination and coping and adaptation to situations.

The identification of functions to assess was guided by general symptoms documented as symptoms for the gero-psychiatric population, the activities observed in the rehabilitative treatment setting as being important to clients, family, and staff, and a minimum number of functions that reflected overall functioning as fundamental to the rehabilitative setting. The certified therapeutic recreation specialists and other members of a treatment team selected a minimum set of essential functions to assess, in conjunction with several other therapists working at three inpatient treatment settings throughout the Tulsa, Oklahoma area. They chose nineteen functions to include as a starting point for the development of an instrument to evaluate functional status.

The TBA was designed to include two types of information: subjective and objective functions. Five behaviorally anchored domains or descriptors described each item. The nineteen items were: frustration tolerance, attitude, affect, self-esteem, gait, balance, coordination gross motor, coordination fine motor, endurance with completion of leisure task, orientation, concentration/attention span, following directions, decision making, memory, dyadic interaction, social interest, participation, leisure pursuits, and coping skills/adaptations.

Design of the Experiment

First, a panel of experts was selected from a list of members of the American Therapeutic Recreation Association who work with the gero-psychiatric clients, to review

the Tracking Behavior Assessment (TBA) for content validity. The panel of experts was asked to evaluate each item regarding its importance and centrality, and to address the domain it has been selected to describe within the gero-psychiatric population see (Appendix E). After the information regarding the content validity of the TBA was analyzed, by determining the percentage agreement amongst the raters see (Tables 1-5), the assessment was not revised and further testing was not deemed necessary.

A thirty-minute long video recording of a model patient, performing the required tasks on the nineteen components from the domains of Emotional, Physical, Cognitive Functioning, Socialization, and Leisure Life Style was used (see Appendix G). The video recording was individually observed and scored by each of the Certified Therapeutic Recreation Specialists (CTRS) working at various healthcare facilities throughout the state of Oklahoma. All of the Certified Therapeutic Recreation Therapists received introductory information on the TBA. The introduction, the administration, and scoring guidelines were covered during this process. The Certified Therapeutic Recreation Specialists observed and scored the video two times at two-week intervals. The subjects were also unfamiliar with the model patient on the video recording.

The therapists were asked to sign a consent form (see Appendix A) and complete a demographic information form (see Appendix B). The therapists were given one Tracking Behavioral Assessment form. The investigator then gave verbal instructions as follows:

1. This form is an assessment titled the Tracking Behavior Assessment, also referred to as the TBA.

2. The TBA is an assessment form developed to assess clients who are elderly with a psychiatric diagnosis.
3. The TBA addresses five domains titled emotional, physical, cognitive functioning, socialization, and leisure life style.
4. Each of the five domains has identified components for assessment with a five point Likert scale.
5. Each area of the domains has a comment section; this section is for any additional information you deem important to the assessment of the client.
6. You will have ten minutes to review the assessment before observing a client on videotape being interviewed regarding the components of the assessment.
7. You will now view a videotape of a client who is elderly, with a psychiatric diagnosis.
8. Please view the videotape, taking notes on the assessment if needed.
9. After the videotape is complete, please fill out the TBA, circling what you deem the most appropriate level of functioning for the client.
10. Are there any questions?
11. Please do not discuss your observations with the other therapists while viewing the videotape.

The therapists then viewed the thirty-minute videotape of the model patient as he/she was being interviewed. After the Certified Therapeutic Recreation Specialists completed the TBA, the investigator collected each form of the TBA and thanked the subjects for their participation.

Description of the Video

The thirty-minute video was recorded after written consent (see Appendix D) was obtained by the individual agreeing to participate in the filming. The author led the model patient participating in the video through the various tasks and discussions required, covering each component of the Tracking Behavioral Assessment. The video was then repeatedly utilized for testing purposes of the Tracking Behavioral Assessment.

Video Recording

Certified Therapeutic Recreation Specialists need to know whether they are using assessments in a manner that produces reliable and valid information. This is so they can have confidence in their ability to attribute a change in score to changes in client function rather than to measurement error (Stumbo & Rickards, 1986). Thus, for the present study, a standardized test situation was required, and, therefore, video-recordings of a model patient (clients) performing set tasks on the Tracking Behavioral Assessment (TBA) was utilized. A model patient was a paid performer trained in the specific task of imitating various diagnoses of clients within the health care environment for instructional purposes. Using a video recording was an efficient means of assessing patients of various ages, functional levels, and severity of deficits. When evaluating measures for clinical use, it was important to consider population-specific reliability for the particular group being measured (Rothstein, 1985); this was considered when selecting a subject for the video recording.

There were several advantages of using video recordings to capture observational data (Gross, 1991; Gross & Conrad, 1991). By using a video recording, it was possible to eliminate confounding factors, such as variation in client compliance, distraction of the client, and fatigue of the client. This approach was particularly apparent when dealing with clients with psychiatric disorders, due the ability of the researcher to hold the majority of these nuisance variables constant (Russell, Rosenbaum, Lane, Gowland, Goldsmith, Boyce & Plews, 1994).

Statistical Analysis

First, a panel of experts, made up of practitioners and educators with expertise in working with the geriatric psychiatric population, was obtained from the American Therapeutic Recreation Association to evaluate the content validity of the TBA. Due to the population size of those therapists meeting the established criteria, the entire population of CTRS meeting the criteria was surveyed. The panel was asked to consider the following questions regarding the TBA:

1. Are the components identified on the TBA easy to comprehend?
2. Are there any unessential components included in the TBA? Please identify.
3. Are there components, which should be included?
4. Please rate the TBA on a scale from 1 to 5 for its potential of identifying treatment goals and objectives? 1=low (able to identify goals and objectives 1

out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

5. Please make any other comments, which might assist with improving the TBA.

And the following questions regarding each domain of behavior:

1. Are there any unessential components included in the emotional domain? Please identify.
2. Are there components for the emotional domain, which should be included? Please identify.
3. Please rate the emotional domain on a scale from 1 to 5 for its potential of identifying treatment goals and objectives? 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

And the following questions regarding each component of each domain:

1. Do the statements for this component identify areas for the elderly clients? Yes, No if no please explain_____

_____

2. Do the statements for the component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____

_____

3. Are the statements for the component understandable? Yes, No if no please explain_____

_____

4. Please rate the component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

_____

Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving component.

Then, again the participants were asked the following questions to complete the validation of the TBA:

1. How does the TBA flow from Domain to Domain is assessing the client?
2. Does the TBA appear to be a user-friendly document?
3. Does the TBA appear to be a tool, which you might potentially utilize at your facility?
4. Please, make any comments, which may impact the usability of the TBA.

This investigation used the following rates of return and agreement based on recommendation of Mike Rosenfeld (2001) of Educational Testing Services, Princeton

New Jersey. A return rate of thirty-five percent of experts returning the portion of the study addressing content validity was sought. A seventy percent agreement rate among raters was sought regarding the actual content validity of the instrument to add substance to claims made by the investigator.

From this information, the TBA was to be revised if warranted. Then two viewings of the prerecorded video was conducted by utilizing ten Certified Therapeutic Recreation Specialists meeting the established criteria for selection as members of the Therapeutic Recreation Association of Oklahoma during the year 2000. After each observation, the Certified Therapeutic Recreation Specialists scored the model patient participating in the video with the Tracking Behavior Assessment. Then, after the first viewing, the internal consistency of the TBA was established, utilizing Cronbach's alpha. The investigator had established at the beginning of the study that a threshold of moderate to high correlation should exist between the components representing each domain of behavior. The range of acceptable correlation coefficients had been established at .70 to .90 as recommended by Portney and Watkins (2000).

Intraclass Correlation Coefficients (ICC) were established to determine the inter-rater reliability of the TBA. The threshold of acceptability was again established on the recommendations of Portney and Watkins (2000). Portney and Watkins recommends that ICC should exceed .90. Ultimately, after the second viewing of the TBA video, the Spearman Rho was applied to the scoring to determine the inter-rater reliability of the assessment. This was done to establish the reliability of the instrument by the same individual raters over time. Again, the recommendations of Portney and Watkins (2000) were followed which established the acceptable range of intrarater reliability correlation

coefficients between values of .60 representing moderate correlation to .75 and above which represent good to excellent correlation.

Finally, to establish the usability/feasibility of the TBA, ten therapists in the field meeting the established criteria of currently working in a facility which delivers psychiatric services to the geriatric population in the state of Oklahoma, were asked to use the instrument for a period of two weeks, keeping track of the following information:

1. How easily is the Tracking Behavior Assessment administered in the clinical setting? Easily, With Some Difficulty, Difficult to Administer
2. How long did it take you to complete each of the Tracking Behavior Assessments?
3. Was the Tracking Behavior Assessment easy to interpret? Please explain your answer
4. Was the information obtained through use of the Tracking Behavior Assessment useful? Please explain your answer

CHAPTER IV

RESULTS AND DISCUSSION

The purpose of this study was to determine the validity, reliability, and usability of the Tracking Behavior Assessment (TBA). This was initiated by conducting a national study regarding the content validity of the TBA. Fifty Certified Therapeutic Recreation Specialists, all members of the American Therapeutic Recreation Association (ATRA) treatment network, were asked to evaluate the TBA. This was accomplished by obtaining the therapists' mailing address information from ATRA and mailing the TBA, along with questions regarding the assessment, to all fifty members of the psychiatric treatment network. Twenty-four of the fifty therapists who were contacted responded with completed forms regarding the TBA. The remaining twenty-six therapists either did not return the forms or returned the forms incomplete. The data was analyzed by calculating the percentage agreement of the therapists regarding the content of the assessment.

The therapists responded to questions regarding the assessment as a whole, regarding ease of comprehension, unessential components, and they rated the TBA on a scale from the low of one to the superior rating of five. The therapists were then asked specific questions regarding each of the five domains and asked to rate the domain on a similar scale for its potential of identifying treatment goals and objectives. After questions regarding the domain were completed, the therapists were asked five specific

questions regarding each of the components of the related domain. This was done to determine if there was a need to alter the assessment.

The internal consistency, interrater reliability, intrarater reliability and usability were then determined by utilizing ten therapists selected from the Therapeutic Recreation Association of Oklahoma's membership directory 1999/2000. All ten had experience working with the gero-psychiatric population and viewed the videos. After the first cycle of rating the TBA, an internal consistency analysis was performed to determine the need, if any, to alter the assessment; the criteria for the need of alteration was not achieved. The second cycle of rating the TBA was then conducted approximately two weeks after the first session. After completion of the second rating cycle, the therapists were asked to assist in establishing the usability of the TBA. The therapist utilized the TBA, along with the established assessment already used in each treatment venue. The therapists were asked after a period of two weeks to complete a series of five questions regarding the usability of the TBA and return it to the investigator in a self-addressed stamped envelope.

The analysis for the study included examining the content validity of the TBA by calculating percentage agreement amongst the raters. The study also examined the internal consistency of the TBA through applying Cronbach's alpha after the initial scoring of the instrument. The reliability of the instrument was established by determining intrarater and interrater reliability coefficients. The intrarater coefficient was determined using Spearman Rho, and the interrater reliability coefficient was established using Intra Class Coefficients. Finally, the usability of the TBA was established by placing the instrument in clinical settings for evaluation.

Results

Content Validity

This section examines the findings concerning the content validity of the TBA.

Research Question:

1. What is the content validity of the Tracking Behavior Assessment?

The scores from the analysis of the percentage agreement among the raters for the TBA indicated that seventy-six percent to one hundred percent of all the raters agreed that each domain and each component of each domain occurring in the TBA were necessary and appropriate. The scores are presented in Table 1, 2, 3, 4, 5, and 6. The raters also reported a one hundred percent agreement rate, indicating that the TBA has potential of identifying treatment goals and objectives.

Table 1

Percentage Agreement Amongst Raters – Content Validity – Domains of Behaviors

Domains of Behavior	Percentage Agreement
Overall Rating	100
Emotional Domain	100
Physical Domain	95
Cognitive Functioning Domain	95
Leisure Life Style	95
Socialization Domain	100

Table 2

Emotional Domain Components

Components	Percentage Agreement
Frustration Tolerance	76
Attitude	90
Affect	95
Self-Esteem	90

Table 3

Physical Domain Components

Components	Percentage Agreement
Ambulation	90
Balance	85
Coordination Gross Motor	95
Coordination Fine Motor	90
Endurance with Leisure Task	81

Table 4

Cognitive Functioning Domain Components

Components	Percentage Agreement
Orientation	100
Concentration/Attention Span	95
Follows Directions	95
Decision Making	95
Memory	76

Table 5

Leisure Life Style Domain Components

Components	Percentage Agreement
Participation	90
Leisure Pursuits	76
Coping Skills/Adaptations	100

Table 6

Social Domain

Components	Percentage Agreement
Dyadic Interaction	95
Social Interest	100

The scores from the content validity analysis are indicators of agreement among Certified Therapeutic Recreation Specialists who purport to have experience in the use of

therapeutic recreation to treat gero-psychiatric clients. The scores were calculated by grouping ratings of 1, 2, and 3 together to represent disagreement, and ratings of 4 and 5 together to represent agreement. Grouping the score of 3 with the scores of 4 and 5 to represent agreement was discussed; it was decided to follow the more conservative pathway of grouping the score of 3 with 1 and 2. This grouping resulted in a more conservative method of analyzing the information, which in turn resulted in stricter threshold for stating agreement, among the raters. As indicated the raters had a ninety-five to one-hundred percent agreement regarding the domains of behaviors which varied from seventy-six to one-hundred percent within the characteristics which are descriptors of the domain.

The established criteria of a thirty-five percent return rate was established to ensure an acceptable number of therapists participated in the study. The criteria of forty-six percent return rate was achieved. Initially, fifty instruments were delivered to Certified Therapeutic Recreation Specialists with experience in the area of treating gero-psychiatric clients. Of those fifty instruments, twenty-three were returned completed, as instructed in the guidelines of the study; five were in some fashion determined to be incomplete, and twenty-two instruments were not returned (see Table 7).

Table 7

Percentage Return Rate of Experts Returning Content Validity Portion of Study

Number of Experts	Percentage Return Rate
50 CTRS	46
5 Incomplete Forms	10
22 Forms Not Returned	44

Of the twenty-three Certified Therapeutic Recreation Specialists returning the research information twenty-two were female and one was male. The therapists ranged in experience from a minimum of three years experience to a maximum of thirteen years experience. Education level obtained varied twelve with a Bachelors of Arts degrees, nine with a Bachelors of Science degrees and one with a Masters of Science degree. All of the therapists were currently employed in a psychiatric setting with the exception of one being currently employed as an Assistant Professor with experience in psychiatric settings (see Table 8).

The established criterion of a minimum agreement percentage rate of seventy percent was achieved in each of the domains of behavior identified for this study. In addition, the minimum agreement percentage rate of seventy- percent agreement was also achieved for each of the components of the domains of behavior. See Tables 2, 3, 4, 5 and 6.

Table 8

Demographics of Therapists Participating in the Validation of the TBA

Gender	Years of Experience	Education	Professional Level	Area of Practice
1 Male	12	1 BA	1 Supervisor	1 Psychiatric
22 Female	3 to 17	9 BS	11 Staff	21 Psychiatric
		11 BA		
		1 MS	1 Assistant Professor	1 Education

Internal Consistency

This section reports the findings related to internal consistency or homogeneity of the TBA. Internal consistency or homogeneity is a measurement, which reflects if groups of items are measuring the same characteristic. The TBA has five domains of behavior and each domain consists of varying numbers of components. Each domain was analyzed utilizing Cronbach's alpha. The correlation coefficients are presented in Table 9.

Table 9

Internal Consistency of the Domains

Domain of Behavior	Alpha Coefficient
Emotional	.7350
Physical	.7280
Cognitive Functioning	.7098
Leisure Life Style	.7312
Socialization	.7805

Note. Each domain of behavior consists of two to three components.

Research Question:

2. What is the internal consistency of the Tracking Behavior Assessment?

The results of the internal consistency analysis were within the range established at the onset of the study. The investigator established the need for a moderate to high correlation, which meant the correlation coefficient, should be between .70 and .90. As noted in Table 9, the correlation coefficients of the five domains of behavior of the TBA

range from a low of .7098 to a high of .7805, all within what is known as a moderate range of correlation (Portney & Watkins, 2000).

Interrater Reliability

This section reports the findings of the interrater reliability of the TBA. The ratings of the therapists after the first scoring of the TBA were analyzed utilizing intraclass correlation coefficient (ICC). Intraclass correlation coefficients reported degree of variance and degree of agreement among raters of the TBA. The findings of the interrater reliability analysis for the first scoring are represented in Table 10.

Research Question:

3. What is the inter-rater reliability of the Tracking Behavior Assessment?

Table 10

Interrater Reliability – Intraclass Correlation Coefficients

Scorings of TBA	Correlation Coefficients
First Scoring	.9521
Second Scoring	.9709

The ratings of the therapists after the second scoring of the TBA were analyzed using ICC and are reported in Table 10. The Intraclass Correlation Coefficient for the first scoring of the TBA was .9521 and the Intraclass Correlation Coefficient for the second scoring was .9709 and is represented in Table 10 indicate a high degree of correlation among the raters of both scoring sessions (Portney & Watkins, 2000).

Intrarater Reliability

This section reports the findings of the intrarater reliability regarding the TBA. The ratings of the therapists after the second scoring of the TBA were analyzed using the Spearman Rho to determine a reliability correlation coefficient. The ratings of each therapist were examined to determine the reliability of the instrument over time, which indicates the ability of the instrument to reveal consistent ratings, by the same raters. The findings are reported in Table 11.

Research Question:

4. What is the intrarater reliability of the Tracking Behavior Assessment?

Table 11

Intrarater Reliability Correlation Coefficients

Therapist	Correlation Coefficient
Therapist #1	.928
Therapist #2	.826
Therapist #3	.878
Therapist #4	.733
Therapist #5	.795
Therapist #6	.782
Therapist #7	.872
Therapist #8	.768
Therapist #9	.690
Therapist #10	.798

The intrarater reliability correlation coefficients range from moderate reliability as indicated in Table 11 for Therapist #9 at .690, to good reliability for Therapist #1 at .928 as suggested by Portney and Watkins (2000).

The therapists who participated in the reliability testing of the TBA are represented in Table 12 represented below. Ten individuals with experience ranging from three to twelve years participated in the testing. The majority of the therapists were female being represented by seven individuals; three individuals represented the male gender. The education level of this group of therapists includes seven Bachelors of Science degrees and three Masters of Science degrees of those all ten were staff level Certified Therapeutic Recreation Specialists. The current area of practice for three of these therapists was physical rehabilitation and psychiatric settings for the remaining seven therapists all of the therapists reported either current or previous experience providing interventions to individuals representing the geriatric psychiatric population.

Table 12

Demographics of Therapists Participating in the Reliability Testing of the TBA

Gender	Years of Experience	Education	Professional Level	Area of Practice
3 Males	6 to 12	2 BS	3 Staff	2 Psychiatric
		1 MS		1 Physical Rehab
7 Females	3 to 13	5 BS	7 Staff	5 Psychiatric
		2 MS		2 Physical Rehab

Usability

The following section reports the comments regarding the usability of the TBA. Six of the ten therapists used the TBA, in addition to the assessment currently used at each treatment facility to evaluate the usability of the TBA, each therapist was instructed to use the TBA with a minimum of ten clients before responding to the questions supplied. The questions asked of the therapists are represented in Table 13.

Table 13

Questions Asked of Therapists

1. How easily is the Tracking Behavior Assessment administered in the clinical setting? Easily, With Some Difficulty, Difficult to Administer
2. How long did it take you to complete each of the Tracking Behavior Assessments?
3. Was the Tracking Behavior Assessment easy to interpret? Please explain your answer
4. Was the information obtained through use of the Tracking Behavior Assessment useful?

Responses to the questions regarding the usability of the TBA are found in Table 14.

Table 14

Responses to Questions Asked of Therapists

1. The difficulty level indicated by the respondents ranged from easily to with some degree of difficulty "due to variety of clients".
2. The average time to complete the TBA was twenty minutes.
3. All respondents agreed that the TBA was easy to interpret stating that it was "self-explanatory, yes and there were detailed sections so you knew what to look for".
4. Responses to question four included "Yes, it gave you an overall view of the patient – physical, mental etc..." "Yes, it helped me to look at the person more in depth" and "yes, it is set-up easily so I can quickly refer back to a particular section if necessary".

Generally, all responses were positive in nature to the actual time required to complete the TBA and ranged from less than eight minutes to thirty minutes to complete. All respondents made positive comments regarding ease of administration and usability of information obtained from completion of the TBA.

Table 15 represents the demographics of the therapists who agreed to participate in the usability testing of the TBA. Of the ten therapists who participated in the reliability testing, six were able to participate in the usability testing of the TBA. The genders of the individuals were represented by one male and five females with three to thirteen years of experience. Four of the therapists had obtained Bachelors of Science degrees and two had obtained Masters of Science degrees. All of the therapists were staff level therapists and all were currently employed in a psychiatric setting, which provided interventions to the geriatric psychiatric population (see Table 15).

Table 15

Demographics of Therapists Participating in the Usability Testing of the TBA

Gender	Years of Experience	Education	Professional Level	Area of Practice
1 Male	6	1 BS	1 Staff	1 Psychiatric
5 Females	3 to 13	3 BS	5 Staff	5 Psychiatric
		2 MS		

Discussion

The results presented in this study report the content validity, interrater reliability, intrarater reliability and usability of the Tracking Behavior Assessment; 1) the validity of the domains of the TBA was found to be within established limits and the validity of each component of the TBA was found to be within the established limits; 2) the internal consistency of the TBA was found to have correlation coefficients within the established limits; 3) the interrater reliability of the TBA was found to have correlation coefficients within the established limits; 4) the intrarater reliability of the TBA was found to have correlation coefficients within the established limits; 5) the TBA assessment was reported to be usable and efficient by therapists within the profession of Therapeutic Recreation. Therefore, statistical and clinical analysis of the Tracking Behavior Assessment appears to point to the stability of the assessment.

As this study's purpose was to address the standardization of the TBA, the findings imply that the assessment is valid, reliable and usable within a clinical setting. The findings of the study seem to be encouraging, and supported by previous literature

addressing standardization of an assessment instrument. Anastasi (1968) reported that before an assessment should be utilized within the clinical environment, the statistical properties of validity and reliability should be established to ensure proper inferences associated with the clinical setting. Stumbo and Rickards (1986) stated that the establishment of standardized and usable assessments is an area of concern for the profession and should be viewed as a priority. They call for the filling of the void that exists in the area of assessment for therapeutic recreation.

These results indicate that the TBA could assist in filling the void mentioned by Stumbo and Rickards (1986). This was demonstrated by the investigation which established acceptable content validity percentages represented in Tables 1, 2, 3, 4 and 5. The percentage agreement among the therapists is substantiated by the higher than usual return rate of forty percent. This was also demonstrated by the acceptable correlation coefficient established for each of the five behaviorally anchored domains. See Table 7.

The acceptable correlation coefficients, which were established for the intrarater reliability of the TBA, are represented in Table 11. In an attempt to enhance the findings of this study, the correlation coefficients for interrater reliability and intrarater reliability were established at a more conservative level to add more meaning to the results. Typically in the social sciences percentage agreement is established at a level more congruent with .55 to .65 (Portney & Watkins, 2000) for this study the correlation coefficients were established depending on item being addressed at .70 or higher. One of the raters is represented by a .690 coefficient, at the lowest end of the acceptable coefficients as indicated by Portney and Watkins, 2000 and gives rise to some consideration. The remaining interrater reliability correlation coefficients range from .733

to .928, representing an acceptable range giving indication of the stability of the assessment instrument across time (Portney & Watkins, 2000).

The next step in the process of standardizing the TBA was to establish the interrater reliability of the assessment. Intraclass Correlation Coefficient indicated there was a strong correlation between the ratings or scoring of the TBA by the raters (Certified Therapeutic Recreation Specialists) for each scoring session. The ICCs are represented in Table 10 for the first and second scoring of the assessment approximately two weeks apart. The ICCs presented in Table 10 demonstrate a high degree of correlation (Watkins & Portney, 2000) adding to the stability of the TBA. This suggests that the TBA has stability between raters across time, as called for by both Anastasi (1968) and Stumbo and Rickards (1986).

This study also established what is termed usability or feasibility of the TBA as Henderson and Bialeschki (1995) refers to as ease of administration, ease of scoring, cost and time required to complete. The therapists who participated in the establishment of the usability of the TBA were asked to comment on the questions found in Table 13. After a two week period of use within their facilities, the therapists reported that the TBA took, on average, 20 minutes to administer and complete; the assessment was rated easy to with some degree of difficulty in completing; all of the therapists reported that the TBA was easy to interpret and that the information which was obtained was useful in establishing treatment goals and objectives. Comments and general answers to questions are represented in Table 14.

In summary, it appears that Tracking Behavior Assessment is a useable instrument. The analysis revealed statistical reliability in the between raters and amongst

raters. Specifically the instrument has reliability correlation coefficients for both intrarater and interrater scores, which were within the established parameters of the study. It also appears that the content validity established by a panel of experts exists within standards established prior to the onset of the study.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

This study was an investigation seeking to establish the validity, reliability, and usability of the Tracking Behavior Assessment (TBA). There were five main questions purposed: 1) What is the content validity of the Tracking Behavior Assessment? 2) What is the internal consistency of the Tracking Behavior Assessment? 3) What is the interrater reliability of the Tracking Behavior Assessment? 4) What is the intrarater reliability of the Tracking Behavior Assessment? 5) What is the usability of the Tracking Behavior Assessment? It was determined that the content validity of the TBA existed beyond acceptable parameters as all five domains of behavior having received percentage agreement among raters between ninety-five percent and one-hundred percent agreement see Table 1. The percentage agreement among raters for the various components of the TBA which represents the content validity of the instrument, ranged from seventy-six percent agreement to one-hundred percent agreement see Tables 2, 3, 4 and 5.

The internal consistency correlation coefficients were found to be in the moderate to high range of acceptability. Internal consistency is the degree to which groups of items are measuring the same characteristic. The range within the five domains of behavior was

.7098 to .7805 representing a suitable level of internal consistency for the TBA. The interrater reliability intraclass correlation coefficients of .9521 and .9709 indicate superior or high correlations between raters in both scoring sessions see Table 10 Finally, the intrarater reliability correlation coefficients represented in Table 11 proved to be within the established parameters for the study ranging from a low of .690 to a high of .928.

The usability of actually utilizing the TBA within the clinical setting was reported by six of the ten Certified Therapeutic Recreation Specialists who participated in establishment of the reliability of the TBA. These therapists reported that the TBA was able to be completed with a "fair" amount of ease after becoming familiar with the instrument and that it was "moderately easily" to administer and interpret see Table 14

The sample for the content validity portion of the study was composed of the fifty therapists from universities and treatment facilities throughout North America who were members of the American Therapeutic Recreation Association Treatment Network and who have expertise in working with the geriatric psychiatric population. The sample for the reliability and usability portion of the study was composed of ten Certified Therapeutic Recreation Specialists selected from treatment facilities within the state of Oklahoma. All had clinical experience in the area of provision of services for the gero-psychiatric population. These therapists were chosen because they met the research criteria of having expertise in working with the gero-psychiatric population, were Certified Therapeutic Recreation Specialists, and were members of the American Therapeutic Recreation Treatment Network, or were members of the Therapeutic Recreation Association of Oklahoma. The American Therapeutic Recreation Treatment

Network and the Therapeutic Recreation Association of Oklahoma provided a list of therapists.

The analysis revealed that the content validity of the TBA for both the domains of behavior and the components contained within the domains, which were represented by percentage agreement among the raters were within the established parameters of seventy to one-hundred percent agreement as represented by Table 1. While all of the components of the TBA as state did fall within the established parameters of the study three of the components were determined to be located toward the lower end of those parameters. The components Frustration Tolerance, Memory, and Leisure Pursuits percentage agreement scores were all determined to be exactly seventy-six percent which placed the components well below the lowest of the remaining component scores of eighty-one percent. The following is offer as potential explanations of why these components were agreed upon far less than the other sixteen.

The component Frustration Tolerance had the most comments regarding discussion of how the component was measured. Comments regarding the structure of the component included "We rate frustration tolerance in a different way at my facility", "I don't think you can measure frustration tolerance", and "Doesn't the other components reveal this information". Upon examination of the panel of expert's scores regarding the component many scored the component at the very conservative cut-off point of three. If a less conservative approach had been utilized for this study the Frustration Tolerance component would have reflected similar percentages of agreement as the other components of the TBA.

The component Memory as stated also had a percentage agreement rate of seventy-six percent the scores of this component also would have been in the parameters of the study if less conservative parameters had been established. It appears as if the panel of experts would have preferred an exact dialog of questions to establish a client's memory score. It also appears that possibly more sensitive identifiers could have potentially elevated the Memory component into the eighty percentage agreement range.

Lastly, the Leisure Pursuits component as well had a seventy-six percent agreement rate. This component however, differs from the previous two in that it has to areas of answers, identification of past and present leisure pursuits. In reviewing the scoring and some of the comments this component appears to have received the lower percentage score as a result of confusion about how to complete the scoring of the component. Potentially the apparent confusion may be removed by separating the component in two separate components adding one additional component to the TBA.

Even though, there appears to have been some confusion regarding the three components discussed above all three were determined to have percentage agreement scores within the established parameters of the study. Thus, therapists can be assured that when utilizing the TBA to assess their clients they can do so with a high degree of confidence that they are assessing what is intended to be assessed.

In addition to the content validity, an analysis of the internal consistency of the TBA revealed that this statistical component also was within the established parameters of correlation coefficients between .70 to .90. This information will allow therapists to place a high degree confidence in their finding when using the TBA. It will assure the

therapists that all the components contained within a domain of behavior being used are assessing similar characteristics.

Both the interrater reliability and the intrarater reliability of the TBA were within the established parameters of the study. The acceptable range of correlation coefficients for this study was established at .90 or higher for interrater reliability. The correlation coefficients for interrater reliability of the TBA were determined through the use ICC and has been documented as being .9521 for the first viewing of the TBA and .9709 for the second viewing of the TBA, see (Table 10 These finding will bolster therapist's confidence in the ability of other therapists within their treatment facility or within other treatment facilities in documenting similar findings is assessing the same client.

The intrarater reliability of the TBA was established utilizing the Spearman Rho, which determines the reliability of an instrument over time. Again, the findings of this investigation determined that the correlation coefficients of the TBA exists within the established criteria of .60 representing moderate correlation to .75 and above which represent good to excellent correlation, as represented by the correlation coefficients found in Table 11. Several explanations could potentially explain the lower correlation coefficient of Therapist number nine. Upon review of the demographics of the therapists participating in this portion of the study it was reviled that Therapists number nine had three years experience working with the population for which the TBA was develop. The remaining nine therapists all had had five or more years experience working with the population. Potential explanations other than experience could be with that therapist's current stress level, time of day, personal concerns which all could have affected his/her concentration and focus on the assessment. There are potential numerous other

explanation which could account for the lower correlation coefficient but if should be remember that while this therapist's coefficient was lower than the other nine it still was within the established parameters of the study. This information should bolster the therapist's confidence when using the TBA over a period of time that they would have similar findings for the same client. Additionally, the analysis of the information regarding the usability/feasibility of the TBA was also positive.

Conclusions

It can be concluded from the findings of this study that the TBA is a valid, reliable, and usable assessment tool specifically developed for use with individuals' age sixty-four and one-half years old or older with psychiatric illnesses. It can be concluded also that the TBA consists of domains and components of domains, which the panel of expert's for the study twenty-three in number determined represents the characteristics of the geriatric psychiatric populations served, by Certified Therapeutic Recreation Specialists.

The results of the study also support the fact that the TBA has very sound internal consistency and that each domain and component of the domains contains information consistent with that particular domain. One can be assured that each domain of behavior represented on the TBA has components, which represent the information desired for collection without redundancy of assessment information. It was also determined through the study that the TBA is a reliable instrument over time and between raters. Treatment facilities which choose to use the TBA can be assured as a result of this study that the

instrument is revealing consistent information no matter which CTRS is conducting client assessments and that if used for reevaluations the information collected will reveal changes which have occurred during the period of time the client was hospitalized. The study also reveled that the TBA is usable in clinical settings with limited difficulties regarding application, cost, and use of the instrument.

A summary of the results of the study show that the Tracking Behavior Assessment is a valid, reliable, and usable assessment for the portion of clients who are elderly and being treated for a psychiatric diagnosis as called for by Dunn and Stumbo in 1991. The use of this instrument will allow the CTRS to develop treatment goals and objectives, which affect the day-to-day functioning of clients, which may impede participation in leisure activities.

Recommendations

After completion of the study, several items come to mind, which is altered, could aid in further investigations regarding the validity, statistical components, and usability of the TBA. The first recommendation for further testing of the TBA would be to provide training for the therapists prior to the first scoring session. Provision of basic training regarding the TBA would elevate several of the questions, which arose during the scoring phases of the TBA by the therapists. Specific training/education regarding each of the domains and the components contained in those domains and the wordings of the identifiers to each component could eliminate questions regarding; definitions of identifying words, necessity of making comments for each component and other

questions regarding "proper use of the TBA". Training could also lessen the learning curve regarding familiarity with the TBA.

A second recommendation regarding further evaluation of the TBA would be to utilize more than one model patient for scoring segment of the study. This could provide multiple sets of scores to analyze which could potentially provide additional information to the sensitivity of the TBA. In addition, identification of specific diagnoses of the model patient could possibly allow specific information to the sensitivity of the instrument based on clinical diagnosis.

Utilizing specific tools, tasks, and other equipment could provide additional reliability between raters. This third recommendation could also potentially provide greater ease of usability in clinical environments; stating exactly what equipment to use, giving exact statements, and providing recommendations regarding settings tend to increase ease of use among therapists.

What happens now? The Tracking Behavior Assessment should be further tested and altered for adult, adolescent, and other psychiatric diagnoses. The TBA should be altered for use with individuals with chemical decency, eating disorders, and in numerous clinical environments then evaluated for the various statistical and non-statistical components addressed in this study. The TBA should be compared to other standardized assessment developed for this specific population.

Finally, the TBA is to be given to the profession of Therapeutic Recreation for the intent of development of a database. This database would then be used for efficacy studies for provision of information to the profession, third-party payers, and the healthcare community in general. The primary purpose of the standardization of the

Tracking Behavior Assessment was to provide to the profession of Therapeutic Recreation a standardized assessment instrument on which to base generalization of interventions between treatment facilities.

REFERENCES

Altrocchi, J., Antonuccio, D., & Miller, G.D. (1986). Non-drug prescription. For the depressed adult patient. Postgraduate Medicine, 79, (8), 164-181.

American Health Consultants (1993). Computer programs facilitate outcome management, patient evaluation. Hospital Rehabilitation: The monthly management advisor for rehabilitation professionals, 2(5). 53-56.

American Psychiatric Association. (2000). Diagnostic and statistical manual of mental disorders–Text Revision (4th ed.). Washington, DC.

American Therapeutic Recreation Association. (1991). Standards for The Practice of Therapeutic Recreation.

Anastasi, A. (1968). Psychological Testing (3rd Ed.). New York, NY: MacMillan Publishing.

Antonuccio, D. (1995). Psychotherapy for depression: no stronger medicine. American Psychologist, 50, (6), 450-452.

Atchley, R. (1988). A continuity theory of normal ages. The Gerontologist, 29, 183-190.

Austin, D. (1997). Therapeutic recreation: Processes and techniques (3rd ed.). Champaign, IL: Sagamore.

Bandura, A. (1969). Principles of behavior modification. New York, NY: Holt, Rinehart & Winston.

Bandura, A. (1977). Social learning theory. Englewood Cliffs, NJ: Prentice-Hall, Inc.

Bandura, A. (1978). The self-system in reciprocal determinism. American Psychologist, 33, 344-358.

Bandura, A., Grusec, J., & Menlove, F. (1966). Observational learning as a function of symbolization and incentive set. Child Development (37), 173-199.

Barezin, M. (1972). Psychodynamic considerations of aging and the aged: An overview. American Journal of Psychiatry, 128, 12, June.

Bartz, A. (1988). Basic Statistical Concepts. New York, NY: Macmillan Publishing Company.

Bedini, L., & Wu, Y. (1994). A methodological review of research in Therapeutic Recreation Journals from 1986 to 1990. Therapeutic Recreation Journal, 28 (2), 86-98.

Beiser, M. (1971). A psychiatric follow-up study of "normal" adults. American Journal of Psychiatry 127,11, p. 40-48.

Bibring E. (1953). The mechanism of depression, in Affective Disorders. Edited by Greenacre, P. New York, NY: International University Press.

Bigland-Ritchie, B., & Woods, J. (1984). Changes in muscle contractile properties and neural control during human muscular fatigue. Muscle Nerve, 7: 691-699.

Boschen, K. (1985). Client outcome measures in rehabilitation. The Ontario Psychologist, 17(3), 3-9.

Bullock, C. (1998). The leisure ability model: Implications for the researcher. Therapeutic Recreation Journal, 32, 97-102.

Burrows, A., Satlin, A., Salzman, C., Nobel, K., & Lipsitz, L. (1995). Depression in a long-term care facility: clinical features and discordance between nursing and patient interviews. Journal of American Geriatrics Society, 43(10), 1118-1122.

burlingame, J., & Blaschko, T. (1990). Assessment tools for recreational therapy. Seattle; WA: Frontier Publishing.

Butler, R., & Lewis, M. I. (1977). Aging and mental health: Positive psychosocial approaches. St. Louis, MO: C. V. Mosby.

Cappozzo, A. (1984). Gait analysis methodology. Human Movement Sciences, 3, 27-50.

Carter, M., Van Andel, G., & Robb, G. (1995). Therapeutic recreation: A practical approach (2nd ed.). Prospects Heights, IL: Waveland.

Cella, D., & Tulsky, D. (1990). Measuring quality of life today's methodological aspects. Oncology, 4, 29-38.

Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Commission on Accreditation of Rehabilitation Facilities. (1989). Standards for All Programs. Tucson, AZ

Cooper, J. (1993). Managing depression and depressive symptoms. Nursing Homes, 42, (2), 37-39.

Cotes, J. (1960). The energy expenditure and mechanical energy demand in walking. Ergonomics 3:97-119.

Coyle, E. Costill, C., & Lesmes, G. (1979). Leg extension power and muscle fiber composition. Med. Science Sports, 11, 12-15.

Cronbach, L. (1971). Test validation. In R.L. Thorndike (Ed.), Educational measurement (p. 443-507). Washington, DC: American Council on Education.

Cumming, E., & Henry, W. (1961). Growing old: The process of disengagement. New York, NY: Basic Books.

Darley, F. (1975). Treatment of acquired aphasia. Advanced Neurology, 7, 111-145.

Dollar, J., Doob, L., Miller, N., Mowrer, O., & Sears, R. (1939). Frustration and aggression. New Haven: Yale University Press.

Donnelly, J., Rosenbert, M., & Fleeson, W. (1970). The evolution of mental status-past and future. American Journal of Psychiatry, 125: 997-1002.

Dunn, J. (1984). Assessment. In C. Peterson, & S. Gunn (Eds.), Therapeutic Recreation Program Design: Principles and Procedures (2nd ed.) (p. 270). Englewood Cliffs: Prentice-Hall.

Dunn, J. (1987). Establishing reliability and validity in evaluation instruments. Journal of Park and Recreation Administration, 5(4), p. 61-70.

Dunn, J. (1991). Integrating client assessment into therapeutic recreation practice. Paper presented at the Client Assessment Workshop, St. Peters, MO.

Ellis, G. (1989). The role of science in therapeutic recreation. In D. M. Compton (Ed.), Issues in Therapeutic Recreation: A Profession in Transition (p. 109-123). Illinois: Sagamore.

Ferguson, D. (1983). Assessment interviewing techniques: A useful tool in developing individual program plans. Therapeutic Recreation Journal 17, 16-31.

Festinger, L. (1957). A theory of cognitive dissonance. Evanston, III: Harper & Row, Peterson.

Forer, S. (1982). Functional assessment instruments in medical rehabilitation. Organization of Rehabilitation Evaluators, 2(4), 29-41.

Gross, D. (1991). Issues related to validity of videotaped observational data. West Journal of Nursing Res., 13, 658-663.

Godbey, G., & Parker, S. (1976). Leisure studies and services: An overview. Philadelphia, London, & Toronto: W. B. Saunders Company.

Gordon, W. (1987). Methodological considerations in cognitive remediation. In M. Meier, A. Benton, & L. Diller (Eds.), Neuropsychological Rehabilitation. New York, NY: Guilford.

Grinker, R., & Werble, B. (1974). Mentally healthy young men (homoclites) 14 years later. Archives of General Psychiatry, 30, 5, p. 701-704.

Gunn, S., & Peterson, C. (1978). Therapeutic recreation program design: Principles and procedures. Englewood Cliffs, NJ: Prentice Hall.

Hamilton, B., Granger, F., Zielezny, M., & Tashman, J. (1987). A uniform national data system for medical rehabilitation. In M. Fuhrer (Ed.), Rehabilitation Outcomes: analysis and Measurement (p. 137-147). Baltimore, MD: Paul H. Brookes.

Havighurst, R., & Albrecht, R. (1953). Older people. New York, NY: Longmans, Green, & Co.

Health Care Financing Administration (1993). The Medicare 1993 handbook. (DDHS Publication No. HCFA 10050). Washington, DC: U.S. Department of Health and Human Services.

Heller, K. (1979). The effects of social support: prevention and treatment implications. In A. P. Goldstein and F. J. Knafer, eds, Maximizing treatment gains: Transfer Enhancement in Psychotherapy. New York, NY: Academic Press.

Henderson, K., & Bialeschki, D. (1995). Evaluating leisure services; Making enlightened decisions. State College, PA: Venture Publishing, Inc.

Hinde, R., & Hide-Stevenson, J. (1973). Constraints on learning. New York, NY: Academic Press.

Howe, C. (1984). Leisure assessment instrumentation in therapeutic recreation. Therapeutic Recreation Journal, 18, 14-24.

Hutchison, T., Boyd, N., Feinstein A., Genda, A. Hollemby, D., & Rowan, B. (1979). Scientific problems in clinical scales as demonstrated in the Karnosfsky index of performance status. Journal of Chromic Diseases, 32, 661-666.

Joint Commission on Accreditation of Healthcare Organizations. (1996). 1997 Hospital Accreditation Standards. Oakbrook Terrace, IL

Johnston, M., Keith, R., & Hinderer, S. R. (1992). Measurement standards for interdisciplinary medical rehabilitation. Archives of Physical Medicine and Rehabilitation, 73, S-3-S-23.

Katzman, R., & Terry, R. (1983). Normal aging of the nervous system. In: Katzman, R. & Terry, R., (eds.). The Neurology of Aging, 15-50. Philadelphia, PA: FA Davis.

Kendell, R. (1968). The Classification of Depressive Illnesses, Maudsley Monographs no. 18. London, England: Oxford University Press.

Klerman, G. (1978). Affective disorders, in the Harvard Guide to Modern Psychiatry. Edited by Cambridge, N. Cambridge, MA: Harvard University Press.

Kloseck, M., Crilly, R., Ellis, G., & Lammers, E. (1996). Leisure Competence Measure: Development and reliability testing of a scale to measure functional outcomes in therapeutic recreation. Therapeutic recreation Journal 30(1), 13-26.

Knuttgen, H. (1976). Development of muscular strength and endurance. In: Knuttgen H, ed. Neuromuscular mechanisms for therapeutic and conditioning exercises. Baltimore, MD: University Park Press.

Koenig, H. (1991). Depressive disorders in older medical inpatient. American Family Physician, 44, (4), 1234-1250.

Larson, K. (1990). Activity patterns and life changes in people with depression. American Journal of Occupational Therapy, 44, (10), 902-906.

Levin, H., O'Donnell, V. & Grossman, R. (1979). The Galveston orientation and amnesia test: A practical scale to assess cognition after head injury. Journal of Nerv. Ment. Dis., 167, 675-684.

Lewis, N. (1943). Outlines for Psychiatric Examinations. Albany, NY: New York State Department of Hygiene.

Lewis, A. (1967). Melancholia: A historical review. In The State of Psychiatry: Essays and Addresses. New York, NY: science House.

Linn, R. (1986). Test Standards and Credentialing Examinations. Evaluations and the Health Professions, 9, 2, 259-260

Lloyd, C. (1980). Life events and depressive disorder reviewed, I: Events as predisposing factors. Achieves General Psychiatry, 37, 529-535.

MacVane, J., Lange, J., Brown, W., & Zayat, M. (1978). Psychological functioning of bipolar manic-depressives in remission. Archives of General Psychiatry, 35, 1351-1354.

Malkin, M., & Howe, C (ed.). (1993). Research in therapeutic recreation; Concepts and methods. State College, PA: Venture Publishing, Inc.

McGuire, F., Boyd, R., & Tedrick, R. (1996). Leisure and aging: Ulyssean living in later life. Champaign, IL: Sagamore Publishing.

Mendels, J. (1993). Clinical management of the depressed geriatric patient: current therapeutic options. American Journal of Medicine, 94, (5A), 13S-18S.

Microsoft Corporation. (2000). Geriatrics Microsoft Encarta Online Encyclopedia. [On-line]. Available: http://encarta.msn.com

Mobily, K. (1999). New horizons in models of practice in therapeutic recreation. Therapeutic Recreation Journal, 33(3), 174-192.

Mosey, A. (1970). Three frames of reference for mental health. Thorofare, NJ: Charles B. Slack, Inc.

Mui, A., & Burnette, J. (1994). A comparative profile of frail elderly persons living alone and those living with others. Journal of Gerontological Social Work, 21, (4), 5-26.

National Council for Therapeutic Recreation Certification. (1999). Certification Standards: Information and Application for the Certified Therapeutic Recreation Specialist (CTRS) Credential. New City; NY.

National Therapeutic Recreation Society. (1995). Standards of Practice For Therapeutic Recreation Society and Annotated Bibliography. Arlington, VA: National Recreation and Park Association.

Newmark, S., Sublett, D., Black, J., & Geller, R. (1981). Nutritional assessment in a rehabilitation unit. Archives of Physical Med. Rehabilitation, 62, 279-282.

Nasher, L. (1987). A systems Approach to Understanding and Assessing Orientation and Balance Disorders. NeuroCom International Inc., Clackamas, Oregon.

Nicholi, A. Jr. (ed). (1978). History and mental status, in The Harvard Guide to Modern Psychiatry. Cambridge, MA: Harvard University Press.

O'Morrow, G. (1976). Therapeutic recreation: A helping profession. Reston; VA: Reston Publishing Company, Inc.

Parmelee, P., Katz, I., & Lawton, M. (1992). Incidence of depression in long-term care settings. Journals of Gerontology, 47, (6). M189-M196.

Peterson, C., & Gunn, S. (1984). Therapeutic recreation program design: Principles and practices (2nd ed.). Englewood Cliffs, NJ: Prentice Hall, Inc.

Piaget, J. (1973). Biology and knowledge. Chicago: University of Chicago Press.

Piper, J. (1952). The basis of culture. New York, NY: Pantheon Books.

Pope, H., & Lipinski, J. (1978). Diagnosis in schizophrenia and manic-depressive illness. Archives of General Psychiatry, 35, 811-828.

Portney, L. & Watkins, M. (2000). Foundations of Clinical Research; Applications to Practice (2nd ed). Upper Saddle River, NJ

Rapaport, D., Gill, M., & Schafer, R. (1968). Diagnostic Psychological Testing, (2nd ed.). New York, NY: International Universities Press.

Rogers, C. (1951). Client-Centered Therapy, Its Current Practice, Implications and Theory. Boston: Houghton-Mifflin Co.

Rosenfeld, M. (personal communication, March 18, 2001) of Educational Testing Services; Princeton, NJ

Rothstein, J. (1985). Measurement and clinical practice: theory and application. In Measurement in psychical therapy (ed. J. Rothstein). p. 1-48, New York, NY: Churchill Livingstone, Inc.

Rowell, D. (1989). Human movement analysis. Soma, (2), 13-20.

Russell, D., Rosenbaum, P, Lane, M., Gowland, C., Goldsmith, C., Boyce, W., & Plews. (1994). Training users in gross motor function measure: methodological and practical issues. Physical Therapy, 74, 630-636.

Sackett, D., Haynes, R., Gyatt, G., & Tugwell, P. (1991). Clinical Epidemiology: A Basic Science for the Clinical Medicine (2nd Ed.). Boston, MA: Little Brown and Co. Inc.

Schuman, J., Beattie, E., Steed, D., Merry, G., & Kraus, A. (1981). Geriatric patients with and without intellectual dysfunction: effectiveness of a standard rehabilitation program. Archives of Physical Medical Rehabilitation, 62, 612-618.

Shank, J., Coyle, C., Boyd, R., & Kinney, W. (1996). A classification scheme for therapeutic recreation research grounded in the rehabilitative sciences. Therapeutic Recreation Journal, 30 (3), 179-196.

Schultz, R. (1993). Thoughts on solving the problem of resident transportation. Nursing Homes, 42, (4), 43-44.

Silverston, B., & Hyman, H. (1977). You and your aging parent. Westminster: Pantheon.

Sohlberg, M., & Mateer, C. (1989). Introduction to cognitive rehabilitation: Theory and practice. New York, NY: The Guilford Press.

Stengel, T. (1991). Assessing motor development in children. In Pediatric Neurologic Physical Therapy (Campbell, S., ed.). 33-65. New York, NY: Churchill Livingston, Inc.

Stolov, W., & Hays, R. (1990). Evaluation of the patient. In: Kottke, F, Lehamann, J., (Eds.). Krusen's Handbook of Physical Medicine and Rehabilitation, (4th ed.). Philadelphia; PA: WB Saunders.

Strub, R., & Black, F. (1985). The Mental Status Examination in Neurology. (2nd ed.). Philadelphia, PA: FA Davis.

Stumbo, N. (1986). A definition of entry-level knowledge for therapeutic recreation practice. Therapeutic Recreation Journal, 20 (4), 15-30.

Stumbo, N. (1990). Overview of state credentialing concerns: A focus on licensure. Therapeutic Recreation Journal, 24(2), 40-59.

Stumbo, N. (1991). Selected assessment resources: A review of instruments and reference. Annual in Therapeutic Recreation, 1, 8-24.

Stumbo, N. (1993/94). The Use of Activity Interest Inventories in Therapeutic Recreation Assessment. Annual in Therapeutic Recreation, 4, 11-20.

Stumbo, N., & Peterson, C. (1998). The Leisure Ability Model. Therapeutic Recreation Journal, 32(2) 82-95.

Stumbo, N., & Rickards, W. (1986). Selecting assessment instruments: Theory in practice. Journal of Expanding Horizons in Therapeutic Recreation, 1, 1-6.

Sylvester, C. (1989). Impression of the intellectual past and future of therapeutic recreation: Implications for professionalism. In D. M. Compton (Ed.), Issues in Therapeutic Recreation: A Profession in Transition (p. 1-20). Illinois, Sagamore.

Trochim, W. (1999). Research methods knowledge Base, (2nd edition).

Wacker, R., Roberto, K., & Piper, L. (1998). Community resources for older adults; Programs and services in an era of change. Thousand Oaks, CA.: Pine Forge Press.

Wells, C. (1977). Archives of general psychiatry, 26, 385.

Winter, D. (1984). Pathologic gait diagnosis with computer-averaged electromyographic profiles. Archives of Physical Med. Rehabilitation; 65: 393-398.

Winter, D. (1987). The biomechanics and motor control of human gait. Waterloo, Ontario: Waterloo University Press.

World Health Organization (WHO): International classification of impairments, disabilities and handicaps: a manual of classification, relating to the consequences of disease. Geneva: World Health Organization. 1980.

APPENDIXES

Appendix A

Consent to Participate in Research Form

(Certified Therapeutic Recreation Specialist)

Title of Project: The validation of the Tracking Behavior Assessment.

Name and Procedures:

I, _____, hereby consent to participate in this research project.

I understand that the following procedures will be followed:
1. Completion of the demographic information
2. Completion of the Tracking Behavior Assessment content validity form

Expected Benefits and Possible Risks:
1. Expected Benefits: A possible benefit of participation in this investigation is the body of knowledge that you will contribute to further the standardization of assessments for individuals who are elderly with psychiatric diagnosis; another potential benefit is the potential improve of patient care in the therapeutic recreation profession.
2. Possible Risks: There are no anticipated risks in participating in this study.

Additional Information:

I understand that all information will be kept confidential by the investigator. All efforts will be make to preserve my anonymity whenever data regarding me is used.

I understand that I am free to withdraw this consent and can discontinue my participation in this investigation at any time.

I have been informed that if I have questions regarding the investigation procedures, I can contact Dr. Suzie Lane, 108 Colvin Center, Oklahoma State University, at (405) 744-5505/swlane@okstate.edu or contact the Internal Review Board via Sharon Bacher, 203 Whitehurst, Oklahoma State University at (405) 744-5700.

I affirm that I have read this entire statement and that I have been given the opportunity to ask any questions.

DATE: _____ **PARTICIPANT:** _____

Appendix B

Demographic Form

Tracking Behavior Assessment (TBA)
Panel of Experts Demographic Information)

Enclosed you will find a survey which addresses the TBA. You have been selected from professionals in North America who have expertise in the treatment of adults who are older with psychiatric diagnosis. To assist with the validation process please complete the questions below.

Demographics

Name_____
Telephone Number_____
Years Experience as a CTRS with Older Adults_____
Population Currently with _____
Professional Level (Staff CTRS, CTRS Supervisor, and/or Educator)_____
Degree and Year Certified (BA, BS, MS, or Doctorate) _____

Your name and comments will be kept in strict confidence. You will be notified of the results regarding the statistical analysis of the content validity of the TBA.

Thank you,

Tim RJ Passmore, CTRS
Assistant Professor
School of Health Professions
Grand Valley State University

Appendix C

Tracking Behavior Assessment (TBA)
Content Validity Assessment Form

Dear John/Jane Doe,

Your are being asked to assist in the validation of the Tracking Behavior Assessment (TBA) which is part of the requirement for completion of a dissertation. The TBA is an assessment developed to be used with older adults diagnosed with psychiatric illness. Your were selected due to your expertise in the treatment of the elderly and your willingness to assist in furthering our field. Your name was selected from the American Therapeutic Recreation Association treatment network.

The following will be the process.

1. Please review the consent to participate form, sign, date and return it with the completed TBA evaluation. If you choose not to participate, please indicate and return materials in the self-addressed envelope.
2. Please answer the question regarding the TBA.
3. Please return the TBA in the self-addressed stamped envelope by 4/20/01.

You will be contacted by 4/19/01 to ensure all materials were received and returned with in our time frame.

Thank you,

Tim RJ Passmore, CTRS
Assistant Professor
School of Health Professions
Grand Valley State University

Appendix D

Consent to Participate in Research

(Model Patient)

Title of Project: The validation of the Tracking Behavior Assessment.

Name and Procedures:

I, _____, hereby consent to participate in this research project.

I understand that the following procedures will be followed:
1. Completion of the demographic information
2. Completion of the Tracking Behavior Assessment content validity form

Expected Benefits and Possible Risks:
1. Expected Benefits: A possible benefit of participation in this investigation is the body of knowledge that you will contribute to further the standardization of assessments for individuals who are elderly with psychiatric diagnosis; another potential benefit is the potential improve of patient care in the therapeutic recreation profession.
2. Possible Risks: There are no anticipated risks in participating in this study.

Additional Information:

I understand that all information will be kept confidential by the investigator. All efforts will be make to preserve my anonymity whenever data regarding me is used.

I understand that I am free to withdraw this consent and can discontinue my participation in this investigation at any time.

I have been informed that if I have questions regarding the investigation procedures, I can contact Dr. Suzie Lane, 108 Colvin Center, Oklahoma State University, at (405) 744-5505/swlane@okstate.edu or contact the Internal Review Board via Sharon Bacher, 203 Whitehurst, Oklahoma State University at (405) 744-5700.

I affirm that I have read this entire statement and that I have been given the opportunity to ask any questions.

DATE: _____ **PARTICIPANT:** _____

Appendix E

Instruction Sheet and Panel of Experts (Content Validity) Form

Tracking Behavior Assessment (TBA)
Panel of Experts (Content Validity)

Enclosed you will find a survey which addresses the TBA. You have been selected from professionals in North America who have expertise in the treatment of adults who are older. First, I would ask that you review the TBA as a whole asking the following questions.

1. Are the components identified on the TBA easy to comprehend?

2. Are there any unessential components included in the TBA? Please identify.

3. Are there components, which should be included?

4. Please rate the TBA on a scale from 1 to 5 for its potential of identifying treatment goals and objectives? 1=low (able to identify goals and objectives 1 out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

5. Please make any other comments, which might assist with improving the TBA.

Demographics

Name_____
Telephone Number_____
Years Experience_____
Population Currently with_____
Professional Level (Staff CTRS, CTRS Supervisor, and/or Educator)_____
Degree and Year Certified (BA, BS, MS, or Doctorate)_____

Your name and comments will be kept in strict confidence. You will be notified of the results regarding the statistical analysis of the content validity of the TBA.

Thank you,

Tim RJ Passmore, CTRS
Assistant Professor
School of Health Professions
Grand Valley State University

Tracking Behavior Assessment (TBA)
Panel of Experts (Content Validity)

You are participating in the validation of an assessment. The TBA has five domains of assessment. Contained within each domain are components, which have been identified as pertaining to the geriatric psychiatric population and the development of treatment goals and objectives for that population.

You are being asked to assist in determining the content validity of these domains of assessment and each component within the domains. In other words, you are to report the degree, to which you agree that each domain and each component of the assessment are accurate measures of what it claims to be measuring. Please, review each domain and the components contained within the domains answering the following questions.

Emotional Domain

The emotional domain contains the areas of frustration tolerance, attitude, affect, and self-esteem.

1. Are there any unessential components included in the emotional domain? Please identify.

2. Are there components for the emotional domain, which should be included? Please identify.

3. Please rate the emotional domain on a scale from 1 to 5 for its potential of identifying treatment goals and objectives? 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

Frustration Tolerance

5 – No appearance of frustration with new activities
4 – Occasionally frustrated with new task
3 – Occasionally frustrated with complex task
2 – Participates, yet appears to be frustrated during activity
1 – Unable to participate or refuses due to frustration with simple tasks

Comments_____

Frustration Tolerance (Please circle, check and write appropriate comments)

1. Do the statements for this component identify frustration tolerance areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the frustration tolerance component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the frustration tolerance component understandable? Yes, No if no please explain_____
   _____
4. Please rate the frustration tolerance component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the frustration tolerance component.

Attitude
5 – Motivated
4 – Hesitant, yet cooperative
3 – Indifferent toward treatment
2 – Resistive
1 – Will not cooperate
Comments_____

Attitude (Please circle, check and write appropriate comments)

1. Do the statements for the attitude component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the attitude component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the attitude component understandable? Yes, No if no please explain_____
   _____
4. Please rate the attitude component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the attitude component.

Affect
5 – Congruent with situation
4 – Animated (exaggerated expression)
3 – Labile
2 – Flat, blunted
1 – Not congruent with situation
Comments_____

Affect (Please circle, check and write appropriate comments)

1. Do the statements for the affect component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the affect component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the affect component understandable? Yes, No if no please explain_____
   _____

4. Please rate the affect component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the affect component.

Self-Esteem
5 – Identifies positive attributes
4 – Realistic view of self
3 – Unrealistic view of self
2 – Ambivalent (doesn't seem to care)
1 – Negative self-statements
Comments_____

Self-Esteem (Please circle, check and write appropriate comments)

1. Do the statements for the self-esteem component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the self-esteem component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the self-esteem component understandable? Yes, No if no please explain_____
   _____
4. Please rate the self-esteem component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the self-esteem component.

Physical Domain

The physical domain contains the areas of ambulation, balance, coordination (gross motor), coordination (fine motor) and endurance with completion of leisure task.

1. Are there any unessential components included in the physical domain? Please identify.

2. Are there components for the physical domain, which should be included? Please identify.

3. Please rate the physical domain on a scale from 1 to 5 for its potential of identifying treatment goals and objectives? 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

Ambulation
5 – No difficulty with ambulation
4 – Requires min assistance for ambulation
3 – Requires mod assistance for ambulation
2 – Requires max assistance for ambulation
1 – Requires total assistance for ambulation
Comments_____

Ambulation (Please circle, check and write appropriate comments)

1. Do the statements for the ambulation component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the ambulation component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the ambulation component understandable? Yes, No if no please explain_____
   _____
4. Please rate the ambulation component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the ambulation component.

Balance
5 – No difficulty with balance
4 – Requires min assistance for balance
3 – Requires mod assistance for balance
2 – Requires max assistance for balance
1 – Requires total assistance for balance
Comments_____

Balance (Please circle, check and write appropriate comments)

1. Do the statements for the balance component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____

   Do the statements for the balance component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____

2. Are the statements for the balance component understandable? Yes, No if no please explain_____
   _____

3. Please rate the balance component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

4. Please make other comments, which might assist with improving the balance component.

Coordination (gross motor)
5 – Independent with UE/LE
4 – Requires min assistance for UE/LE
3 – Requires mod assistance for UE/LE
2 – Requires max assistance for UE/LE
1 – Requires total assistance for UE/LE
Comments_____

Coordination (gross motor) (Please circle, check and write appropriate comments)

1. Do the statements for the coordination (gross motor) component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the coordination (gross motor) component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the coordination (gross motor) component understandable? Yes, No if no please explain_____
   _____
4. Please rate the coordination (gross motor) component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the coordination (gross motor) component.

Coordination (fine motor)
5 – Requires no assistance
4 – Requires min assistance L/R
3 – Requires mod assistance L/R
2 – Requires max assistance L/R
1 – Requires total assistance L/R
Comments_____

Coordination (fine motor) (Please circle, check and write appropriate comments)

1. Do the statements for the coordination (fine motor) component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the coordination (fine motor) component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the coordination (fine motor) component understandable? Yes, No if no please explain_____
   _____
4. Please rate the coordination (fine motor) component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the coordination (fine motor) component.

Endurance with completion of leisure task

5 – Completed leisure task greater than 11 min.
4 – Completed leisure task 6 – 10 min.
3 – Completed leisure task 4 – 5 min.
2 – Completed leisure task 2 – 3 min.
1 – Completed leisure task 0 – 1 min.
Comments_____

Endurance with completion of leisure task (Please circle, check and write appropriate comments)

1. Do the statements for the endurance with completion of leisure task component identify functional areas for the elderly clients? Yes, No if no please explain____
   _____
2. Do the statements for the endurance with completion of leisure task component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the endurance with completion of leisure task component understandable? Yes, No if no please explain_____
   _____
4. Please rate the endurance with completion of leisure task component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the endurance with completion of leisure task component.

Cognitive Functioning

The cognitive functioning domain contains the areas of orientation, concentration/attention span, follows directions, decision-making, and memory.

1. Are there any unessential components included in the cognitive functioning domain? Please identify.

2. Are there components for the cognitive functioning domain, which should be included? Please identify.

3. Please rate the cognitive functioning domain on a scale from 1 to 5 for its potential of identifying treatment goals and objectives? 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

Orientation
5 –Aware in all areas
4 –Aware in three areas (specify)
3 – Aware in two areas (specify)
2 – Aware in one area (specify)
1 – Not aware in areas (time, place, situation, person)
Comments_____

Orientation (Please circle, check and write appropriate comments)

1. Do the statements for the orientation component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the orientation component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the orientation component understandable? Yes, No if no please explain_____
   _____
4. Please rate the orientation component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the orientation component.

Concentration/Attention Span
5 – Able to concentrate 30 – 40 minutes
4 – Able to concentrate 20 –29 minutes
3 – Able to concentrate 6 – 19 minutes
2 – Able to concentrate 2 – 5 minutes
1 – Able to concentrate 0 – 1 minutes
Comments_____

Concentration/Attention Span (Please circle, check and write appropriate comments)

1. Do the statements for the concentration/attention span component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the concentration/attention component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the concentration/attention component understandable? Yes, No if no please explain_____
   _____
4. Please rate the concentration/attention component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the concentration/attention component.

Follows Directions
5 – Able to follow directions without difficulty
4 – Able to follow three step directions (with/without cue)
3 – Able to follow two step directions (with/without cue)
2 – Able to follow one-step directions (with/without cue)
1 – Unable to follow any directions (with/without cue)
Comments_____

Follows Directions (Please circle, check and write appropriate comments)

1. Do the statements for the follows directions component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the follows directions component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the follows directions component understandable? Yes, No if no please explain_____
   _____
4. Please rate the follows directions component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the follows directions component.

Decision Making
5 – Able to make own decision
4 – Will make decisions, but looks for supports from staff/peers
3 – Given two choices, can make decision
2 – Given one choice, can make decision
1 – Unable to make decisions or refuses
Comments_____

Decision Making (Please circle, check and write appropriate comments)

1. Do the statements for the decision-making component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the decision-making component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the decision-making component understandable? Yes, No if no please explain_____
   _____
4. Please rate the decision-making component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the decision making component.

Memory
5 – Good recall
4 – Recalls 5 items
3 – Recalls 3 to 4 items
2 – Recalls 1 to 2 items
1 – No recall
Comments_____

Memory (Please circle, check and write appropriate comments)

1. Do the statements for the memory component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the memory component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the memory component understandable? Yes, No if no please explain_____
   _____
4. Please rate the memory component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the memory component.

Leisure Life Style

The leisure life style domain contains the areas of participation, leisure pursuits and coping skills and adaptation.

1. Are there any unessential components included in the leisure life style domain? Please identify.

2. Are there components for the leisure life style domain, which should be included? Please identify.

3. Please rate the leisure life style domain on a scale from 1 to 5 for its potential of identifying treatment goals and objectives? 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

Participation
5 – Self-initiating in structured activities
4 – Actively participates after encouragement
3 – Attends after encouragement, and does engage in activity
2 – Attends after encouragement, but does not engage in activity
1 – Refuses to attend
Comments_____

Participation (Please circle, check and write appropriate comments)

1. Do the statements for the participation component identify functional areas for the elderly clients? Yes, No if no please explain_____
_____

2. Do the statements for the participation component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
_____

3. Are the statements for the participation component understandable? Yes, No if no please explain_____
_____

4. Please rate the participation component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

_____
Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the participation component.

Leisure Pursuits

Past	Present	
5	5	Has a variety of interests (active/passive)
4	4	Has interest in 2-3 leisure pursuits
3	3	Has knowledge/interest with one pursuit
2	2	Lacks skills or knowledge of available pursuits
1	1	Participates in unhealthy pursuit

Comment_____

Leisure Pursuits (Please circle, check and write appropriate comments)

1. Do the statements for the leisure pursuits component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the leisure pursuits component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the leisure pursuits component understandable? Yes, No if no please explain_____
   _____
4. Please rate the leisure pursuits component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the leisure pursuits component.

Coping Skills and Adaptations
5 – Effectively uses coping skills
4 – Has knowledge of healthy coping skills
3 – Uses unhealthy coping skills
2 – Current coping skills ineffective at this time
1 – Has no coping skills
Comment_____

Coping Skills and Adaptations (Please circle, check and write appropriate comments)

1. Do the statements for the coping skills and adaptations component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the coping skills and adaptations component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the coping skills and adaptations component understandable? Yes, No if no please explain_____
   _____
4. Please rate the coping skills and adaptations component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the coping skills and adaptations component.

Socialization Domain

The socialization domain contains the areas of dyadic interaction and social interest.

1. Are there any unessential components included in the socialization domain? Please identify.

2. Are there components for the socialization domain, which should be included? Please identify.

3. Please rate the socialization domain on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

Low 1 2 3 4 5 Superior

Dyadic Interaction
5 – Initiates and maintains dyadic interaction
4 – Responds to and maintains interactions when initiated by others
3 – Responds minimally; does not contribute new content or questions
2 – Responds to interactions
1 – Does not respond in dyadic interactions
Comments_____

Dyadic Interaction (Please circle, check and write appropriate comments)

1. Do the statements for the dyadic interaction component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the dyadic interaction component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no please explain_____
   _____
3. Are the statements for the dyadic interaction component understandable? Yes, No if no please explain_____
   _____
4. Please rate the dyadic interaction component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. ? 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the dyadic interaction component.

Social Interest
5 – Seeks social contacts/situations
4 – Initiates social contacts when in presence of others
3 – Doesn't initiate but doesn't avoid social contacts/situations
2 – Exhibits excessive need for social contact
1 – Avoids social contacts/situations
Comments_____

Social Interest (Please circle, check and write appropriate comments)

1. Do the statements for the social interest component identify functional areas for the elderly clients? Yes, No if no please explain_____
   _____
2. Do the statements for the social interest component represent reasonable sequenced steps for assessing the functional abilities of elderly clients? Yes, No if no, please explain_____
   _____
3. Are the statements for the social interest component understandable? Yes, No if no please explain_____
   _____
4. Please rate the social interest component on a scale from 1 to 5 for its potential of identifying treatment goals and objectives. 1=low (able to identify goals and objectives 1out of 10 times) & 5=superior (able to identify goals and objectives 9 out of 10 times)

   _____
   Low 1 2 3 4 5 Superior

5. Please make other comments, which might assist with improving the social interest component.

Tracking Behavior Assessment (TBA)
Panel of Experts

To complete the validation of the TBA please review the TBA as a whole form considering the following question.

1. How does the TBA flow from Domain to Domain is assessing the client?

2. Does the TBA appear to be a user-friendly document?

3. Does the TBA appear to be a tool, which you might potentially utilize at your facility?

4. Please, make any comments, which may impact the usability of the TBA.

Please, return by May 7, 2001 in the self-addressed stamped envelope.

Thank you,

Tim RJ Passmore, CTRS
Assistant Professor
School of Health Professions
Grand Valley State University

Appendix F

Instructions Sheet for Reliability Testing

The therapists will be asked to sign a consent form (see Appendix A) and complete a demographic information form (see Appendix B). The therapists will be given one Tracking Behavioral Assessment form. The investigator will then give verbal instructions as follows:

1. This form is an assessment titled the Tracking Behavior Assessment also referred to as the TBA.
2. The TBA is an assessment form developed to assess clients whom are elderly with a psychiatric diagnosis.
3. The TBA addresses five domains titled emotional, physical, cognitive functioning, socialization, and leisure life style.
4. Each of the five domains has identified areas for assessment with a five point Likert scale.
5. Each scale ranges from 1 to 5 with one representing the lowest level of functioning and five representing the highest level of functioning.
6. Each area of the domains has a comment section; this section is for any additional information you deem important to the assessment of the client.
7. You will have ten minutes to review the assessment before observing a client on a video tape being interview regarding the components of the assessment.
8. You will now view videotape of a client whom is elderly with a psychiatric diagnosis.
9. Please view the videotape taking notes on the assessment if needed.
10. After the videotape is complete, please fill out the TBA circling what you deem the most appropriate level of functioning for the client.
11. Are there any questions?
12. Please do not discuss your observations while viewing the videotape with the other therapists.

The therapists will now view the thirty-minute videotape of the video participant as he/she is being interviewed. After the subjects have completed the TBA the investigator will collect each form of the TBA and thank the subjects for their participation.

Appendix G

Script for Model Patient

The following questions will be asked of video participants.

1. Mr./Mrs./Ms. Doe how have you been feeling about your self?
2. Would you like to play a game of dominoes?
3. Do you know where we are today?
4. What is the date, time, situation?
5. Will you walk with me over here?
6. What types of activities/things do you currently/past like to do?
7. Can you place the dominoes in this pattern?
8. Are you married? If so what is your spouse's name?
9. Do you have any children? If so how many and what are their names?
10. What do you do when your are under stress or tired?

The video participants will be asked these questions during a conversation while playing dominoes or some other tabletop activity/game. The various items on the Tracking Behavior Assessment will be observed during either the interview or when the participant is entering or leaving the video taping area.

Appendix H

Oklahoma State University
Institutional Review Board

Protocol Expires: 9/20/01

Date : Thursday, September 21, 2000 IRB Application No ED016

Proposal Title: VALIDATION OF THE TRACKING BEHAVIOR ASSESSMENT

Principal
Investigator(s) :

Tim Passmore
405 Colvin
Stillwater, OK 74078

Suzie W.L. Lane
108 Colvin
Stillwater, OK 74078

Reviewed and
Processed as: Expedited

Approval Status Recommended by Reviewer(s) : Approved

Signature :

Carol Olson, Director of University Research Compliance

Thursday, September 21, 2000
Date

Approvals are valid for one calendar year, after which time a request for continuation must be submitted. Any modifications to the research project approved by the IRB must be submitted for approval with the advisor's signature. The IRB office MUST be notified in writing when a project is complete. Approved projects are subject to monitoring by the IRB. Expedited and exempt projects may be reviewed by the full Institutional Review Board.

VITA

Tim RJ Passmore

Candidate for the Degree of

Doctor of Education

Thesis: STANDARDIZATION OF THE TRACKING BEHAVIOR ASSESSMENT

Major Field: Applied Educational Studies

Area of Specialization: Gerontology

Biographical:

Education: Graduated from Collinsville High School, Collinsville, Oklahoma in May 1979; received a Bachelor of Science degree in Education and Master of Science degree with an emphasis in Therapeutic Recreation from Oklahoma State University, Stillwater, Oklahoma in December 1987 and May 1993, respectively. Completed the requirements for the Doctor of Education degree with a Major in the School of Applied Educational Studies at Oklahoma State University in May 2002.

Experience: Employed as a Public School Teacher for the Owasso Public School District from 1987 to 1991; employed as a Therapeutic Recreation Specialist at Laureate Psychiatric Clinic and Hospital form 1991 to 1993; employed as Certified Therapeutic Recreation Specialist at George Nigh Rehabilitation Center form 1993 to 1995; employed as a Certified Therapeutic Recreation Specialist Specialty Hospital of Tulsa 1995 to 1999; employed as a graduate assistant or adjunct faculty at Oklahoma State University form 1997 to 2000; employed as an Assistant Professor School of Health Professions Grand Valley State University 2000 to present.