

ABSTRACT

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The pictorial leisure activity assessment (PLAA) was developed to assess the leisure competencies and preferences of people with cognitive disabilities. The PLAA is based on a well-established assessment widely utilized in therapeutic recreation, the State Technical Institute Leisure Activities Project (STILAP). An initial comparison testing of the STILAP with the PLAA was conducted to verify the feasibility of a pictorial version of the STILAP. The results of that study are posted below. The participants of the study were two adults with developmental disabilities living in a nursing home setting. The participants were initially assessed by three separate raters; one of the raters assessed while two other raters watched and documented responses of participants. The first testing of participants utilized the written version of the STILAP. Then participants were assessed with the pictorial version, PLAA. Upon completion, raters reported the following results: the PLAA took less time than the administration of STILAP, the PLAA was easier to administer, it provided them with more valid results based on participants affective responses (this has yet to be formally determined), subjects appeared more interested in pictures, less bored and provided answers that were more varied, the PLAA provided more opportunity for rapport building with the participants, and the entire PLAA was too long for clients. Based on these observations, the PLAA is a useful assessment due to its ease of administration, rapport building opportunities, and engaging properties. Thus, this feasibility study concluded that this assessment warrants further testing to determine its validity and reliability.

**THE DEVELOPMENT OF PLAA:
A PICTORIAL LEISURE ACTIVITY ASSESSMENT
FOR ADULTS WITH COGNITIVE DISABILITIES**

**A THESIS PRESENTED TO
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COLLEGE OF HEALTH, PHYSICAL EDUCATION,
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The candidate has successfully completed the final oral presentation.

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INTRODUCTION AND BACKGROUND

Therapeutic Recreation Specialists need reliable valid instruments to use in the assessment of clients with cognitive impairments. In order to accurately assess the clients, the Therapeutic Recreation Specialist needs effective communication tools. Several studies demonstrate that pictures are a well-established means to communicate with people with cognitive deficits (Hobson & Duncan, 1979; Hunt, Alwell, & Goetz 1991; Wheeler, Jacobson, Paglieri, & Schwartz, 1993).

Balance in life is essential in order to lead a healthy life. This balance in leisure is similar to the Zen philosophy of balance in all things. Leisure wellness and leisure balance have been ongoing topics of discussion in the profession of therapeutic recreation (Austin, 1998; Wilhite, Keller, & Cladwell, 1999). Maintaining a healthy leisure lifestyle is important. *Healthy People 2000* suggests that when people maintain healthy leisure lifestyles, they actively participate in their own well-being (see also, Caldwell, Smith & Weissinger, 1992; Coleman & Iso Ahola, 1993; Ragheb, 1993).

Improving the quality of life of persons with mental retardation residing in the community is an ongoing issue (Landesman, 1986; Schalock, 1991). The Individuals with Disabilities Act (IDEA) of 1988, requires that leisure services be provided for children with mental retardation and that their personal choices be considered in programming (Morreau, Novak, & Sigelman 1980). In order to provide people who have mental retardation with effective treatment plans and meaningful leisure services, professionals need appropriate assessments. Stumbo (1991) reported that there are simply not enough assessments; in addition, the available assessments are psychometrically inadequate. There is a great need for an effective instrument that can

accurately assess the leisure preferences of persons with cognitive disabilities rather than their functional improvement. In fact, Neumayer & Bleasdale (1996) reports that persons with cognitive disabilities have very different values and preferences than what professional service providers had thought. By understanding the preferences of consumers, professionals can provide a treatment plan that clients are motivated to follow.

One of the problems with most assessments for persons with mental retardation is that assessments often collect data from the care givers rather than the consumers themselves (Aveno, 1987, 1989; Hill, Rotegard, & Bruininks, 1984; Voeltz, Wuerch, & Bockhaut, 1982). This is precisely why a Pictorial Leisure Activity Assessment (PLAA; pronounced "play") is needed. The use of pictures to communicate with lower functioning clients is a well-established and effective means of communication (Hobson, et al., 1979; Hunt, et al., 1991; Wheeler, et al., 1993). Pictures have been used in the workplace (Storey & Provost, 1996) and in teaching daily living skills (Pierce & Schreibman, 1994). Pictures are also conceptually retained better than words (Ellis & Wooldridge, 1985). Simon, Toll, & Whitehair (1996) report that a communication system that uses pictures is a valid and preferred communication system for adolescents with multiple disabilities, including moderate mental retardation.

Currently there is only one known leisure activity assessment that uses pictures (rather than requiring reading) which has been developed for persons with mental retardation. This assessment is the Leisure Assessment Inventory (Hawkins, Ardovino, & Hsieh, 1998). Two inhibiting factors exist with this developed assessment. First, the

field test results have not yet been published and second the assessment is not yet available for purchase.

There is a need for a useful assessment that measures a client's leisure lifestyle. Most leisure interest inventories do not categorize the individual's stated preferences into useable competency areas. Currently only the State Technical Institute Leisure Activities Project, (STILAP) (Navar & Burlingame, 1997; Prvu, 1998) assesses an individual's leisure competencies. These competency areas provide a profile of the amount of balance in an individual's leisure lifestyle. A healthy lifestyle is a balanced lifestyle in which leisure plays an important role (Kimeldorf, 1994; O' Connor, 1990). Hayes & Antozzi (1982) report that a change in lifestyle and leisure plays a vital role in physical and emotional health and well-being. In addition to a balanced lifestyle, it is also important for people to have a healthy balance of leisure pursuits. The need to develop a healthy and balanced leisure lifestyle (Navar, et al., 1997) is important to every person because as time passes our abilities and leisure tastes change. Without developing competencies and leisure participation patterns in a variety of areas, people may become less likely to successfully adjust to changing life conditions. When individuals have preferences in a variety of areas (e.g. leisure competencies), they are better equipped to handle life changes.

DEVELOPMENT OF PLAA

This assessment is a tool used to facilitate effective communication between the Therapeutic Recreation Specialist and client. It also fits appropriately with IDEA standards. Those standards state that people with disabilities should be given as much

independence and freedom of choice as possible. This assessment fosters such independence. The use of pictures gives the client the freedom of choice and the empowerment of understanding.

The written format of most leisure assessments utilized today can be difficult for people with cognitive disabilities to understand. This requires the Therapeutic Recreation Specialist to explain the assessment to the client, which can, in turn, skew the results of the assessment, and affect interrater reliability. This lack of understanding also increases the amount of time needed to assess the client. Additionally, and perhaps more importantly, the need to explain activities further reminds persons with developmental disabilities that they are cognitively impaired.

Thus, a pictorial version of assessing clients with cognitive abilities is needed. Pictures provide better communication, more accurate results, and decrease the assessment administration time. The development of PLAA will provide new insight into the leisure lifestyles of the clients served.

METHOD

Subjects

One male and one female were selected as participants in the PLAA testing. Both were adults living in a nursing home. The male was in his 20s and the female in her 60s; both were able to verbally communicate. The facility's treatment team selected these two participants as potentially benefiting from a picture-based assessment. Informed consent was obtained by their legal guardians before the subjects' participation in the testing (see Appendix A).

Procedure

The development of PLAA was based on the widely used STILAP assessment. STILAP lists 121 activities and categorizes them into 14 competency areas. PLAA used 116 activities over nine competency areas. The list of activities was reviewed by a panel of experts in therapeutic recreation. This was to ensure that the activities selected represented the majority of leisure activities in people's lives. Some of these activities are the same as found in the original STILAP. Also included are many new leisure activities that were not available when the STILAP was first developed. The panel also reviewed the competencies provided by the original STILAP and condensed the competencies from 14 to nine areas in order to simplify scoring. This panel then assigned each of the activities into competency areas. Pictures of the activities were reviewed to ensure adequate representation of the activity. After the panel reviewed the pictures, the face validity was established by participating clients.

The participants were brought to a quiet location in which to conduct the testing. They were asked to identify the activities pictured to help determine the face validity of the pictures utilized in the PLAA. After the face validity of the pictures had been determined, participants were assessed using both the pictorial format and the written format. First participants were assessed with a written version of the PLAA. Three Certified Therapeutic Recreation Specialist (CTRS) testers were present; two observing and one conducting the interview. Each tester individually rated participant's responses. CTRS testers went through the written version item by item and asked participants the questions found on the Interview sheet (Appendix B).

Three days later, the pictorial version of the PLAA was administered. Pictures were presented to the participants in a photograph album in which three 4x6-inch pictures were presented on one sheet at one time. Data was scored on the Activity Checklist (Appendix C) and the Leisure Profile Scoresheet (Appendix D). First, CTRS testers would point to the picture and ask the participants to identify the activity shown in the picture. Then the questions found on the interview sheet (Appendix B) were asked about the activities pictured. The same room and time of day was scheduled as in the previous testing.

Results

Upon completion of the testing of the two versions, high interrater reliability was noted. Upon interviewing the raters, the following results were obtained. The pictorial version took significantly less time with one participant but took the same amount of time with the other participant. This inconsistency was due to the second participant providing longer, more in depth answers to the assessment questions with the pictorial version than the written version.

CTRS testers reported that the PLAA was easier to administer. Test administrators felt the pictures needed much less explaining to the participants in order for them to understand the activity. In addition, the CTRS testers felt they knew immediately if a participant did not know what the pictured activity was based on the client's confused facial expression. Several times during the written version, many of the activities needed to be explained to the participants in order for them to gain some

understanding of the activity, which was not the case with the pictorial version. Thus, pictures provided better communication with clients.

The CTRS testers felt the PLAA provided them with results that are more valid based on participants affective responses (this has yet to be formally determined). As stated above the CTRS testers felt they were able to determine the accuracy of the client's answers based on the clients' facial expressions. In addition to the affective responses, the participants also expressed their leisure memories related to the activities pictured. This was not as easily determined with the written version, as clients often only had affective responses when they were absolutely sure of the activity and shared a leisure memory with the testers. Otherwise, the emotional responses of the participants had a tendency to remain unchanged with the written version.

Subjects appeared more interested in pictures and provided more answers that were varied. Participants often enjoyed recounting to the CTRS testers a particular leisure memory sparked by the sight of the pictorial representation of that activity. The amazing thing was that these participants, in addition to recalling recent leisure memories, often recalled activities from several years ago to discuss with the test administrators. Subjects often giggled and laughed during the telling of the tale, and they appeared caught up in the memory.

CTRS testers felt the PLAA provided more opportunity for rapport building with the participants. For example, rapport building opportunities came about in the discussion of family stories related to their leisure memories. In addition, clients reported to this writer that they wanted to know when the CTRS testers would be returning to talk some more. Despite increased interest in the pictorial version, CTRS testers reported the

PLAA was too lengthy for clients, when given in its entirety. Near the end of the administration of the study, both participants reported feeling fatigued and required additional small breaks to retain their attention during the study. Thus, the PLAA is an assessment that warrants further testing to determine its validity and reliability, particularly in relation to administering the assessment in subsections.

PURPOSE

The purpose of the Pictorial Leisure Activity Assessment (PLAA) is to help assess the leisure preferences of adults who have developmental disabilities. Selected leisure activities are categorized into nine competency areas. These areas provide an indication of the participant's balance in a variety of leisure interests.

PREPARATION OF PLAA PRIOR TO ADMINISTRATION

Supplies: The Therapeutic Recreation Specialist will need a score sheet, a PLAA test manual and a pencil or pen to score the assessment.

Time Needed to Prepare: Ten to 25 minutes.

Setting: The assessment should be given in a quiet location with minimal distraction to the client.

Assessment Preparation: Before the administration of the assessment the Therapeutic Recreation Specialist should review the PLAA picture album and remove those pictures that are not appropriate for the client. See page 15, *Individualizing*, on how to review pictures in PLAA to tailor the assessment to the individual.

For example:

If a client were restricted from leaving his/her locked unit, pictures of outdoor activities: water skiing, canoeing, boating, or any other activity that could not be adapted to restrictions of the unit should be removed.

These pictures may only serve to further remind the individual of their restriction and frustrate them. Another example:

A client who has a history of sexual offense may not be shown activities that involved a vulnerable population such as playing with kids, volunteering in a nursing home or coaching youth sports.

The professional judgment of the Certified Therapeutic Recreation Specialist is needed to select appropriate pictures. This process implies that CTRS has some familiarity with the client. However, if the client is new, the CTRS may elect to use all the pictures; to avoid improperly limiting leisure interests.

ADMINISTRATION OF PLAA

Time Needed to Administer Assessment: Approximately one hour.

Orienting the Client: Before the administration of the PLAA the Therapeutic Recreation Specialist, should explain to the client the purpose of the assessment. In addition, the Therapeutic Recreation Specialist should explain how the assessment is administered.

Instructions to the CTRS:

- The Therapeutic Recreation Specialist should explain to the client, "I am going to be showing you some pictures. These pictures are of people doing fun things. I want you to point to those pictures that you think are fun."
- The pictures should be presented in the format provided in the PLAA. Only three pictures should be presented at one time.

1. After the client points to a picture the Therapeutic Recreation Specialist should follow up with the following questions: "Is this something you do for fun? *If Yes then ask the next set of questions. If No, then go on to the next activity listed on the checklist and repeat the above question.*
 2. Do you do this a lot, sometimes, or never? *If the client states, 'a lot', then circle the letter "M" on the Checklist. If the client responds, 'sometimes' then circle the letter "S" on the Checklist. If the client responds, 'never', then simply move onto the next activity and start over with step one.*
 3. Next, the Therapeutic Recreation Specialist should ask the client, "Would you like to learn more about this activity? Yes, No, or Maybe?" *If the client responds, 'yes' then circle the letter 'I', if 'no' then move onto the next picture. If the client responds, 'maybe' then the staff should ask more questions to find out what 'maybe' means to the client. (Do they understand the question? Do they want more information? Are they afraid about how much time the activity will take?)*
- It is important to use the multiple choice format when asking questions of the clients. Rubin (1995) and Sigelman, Schoenrock, Budd, Winer, Spanhel, & Martin, (1983) found that this format along with the use of pictures yields the highest levels of responsiveness with the greatest accuracy. When a Yes/No format was used with clients, Rubin (1995) and Sigelman, et al. (1983) discovered an increase in clients' acquiescence, which is not desirable.

DEFINITION OF COMPETENCY

A competency is a skill that the participant does on a regular basis that represents an aspect of a person's leisure lifestyle. Not meeting a competency is an indication to the Therapeutic Recreation Specialist the client has an area that can be developed to improve the balance of an individual's leisure? If a client does not meet a competency, the Therapeutic Recreation Specialist should explain to the client that this does not mean they failed or are not good.

Examples of not meeting competencies and their possible plans are as follows:

An athletic person may choose to develop competency in an appreciation skill or spectator skill in preparation for lifestyle changes due to aging. Or he/she may decide that their leisure is satisfactory and balanced enough.

A sedentary person discovers that she spends much of her time inactive in her leisure and has not met competencies for physical activities. She decides that she is going to join a fitness club in order to fill these deficiencies.

A solitary man who pursues leisure that doesn't require others decides he is going to call some of his friends to join their volleyball team.

ACTIVITY CHECKLIST

The checklist (Appendix C) is used to record the responses of the client. The Therapeutic Recreation Specialist follows the sample questions posed in the previous section of this manual titled, *Administration of PLAA, pg. 9*. The responses are then recorded on the activity checklist, and later are transferred to the Leisure Profile Scoresheet. In front of each of the 116 activities on the Activity Checklist are the letters 'M' (for much), 'S' (for sometimes), 'I' (for interest).

'MUCH' means that the client participates often in the activity and that his/her skill level is high enough for self-satisfying participation. It must also be understood that

some activities may be seasonal and that the client will only be able to participate in the activity for part of the year.

Some examples are:

'I exercise at the club 3/week.'

'I play poker every Friday.'

'I bowl weekly in the winter.'

'SOMETIMES' means that the client engages in the activity on an irregular basis.

Some examples would be:

'I only playing tennis when visiting my family.'

'We play football only when we can get enough people together.'

'I go golfing once a month in the summer.'

'INTERESTED' has two possible meanings: 1) the client is currently engaging in the activity and would like to learn more about the activity. 2) The client has never done the activity and would like to learn the skills necessary to participate. It is possible for a client to have 'I' indicated on the Activity Checklist in addition to having 'S' or 'M' circled.

Examples:

'I would like to learn more about other forms of martial arts besides karate.'

'I enjoy fishing but would like to become better at it.'

'I always wanted to learn how to sew.'

The Activity Checklist is not a list of every possible leisure activity nor is it intended to be. There are blanks at the end of the Checklist for activities not pictured in the assessment.

SCORING OF PLAA

After the administration of the PLAA, the Therapeutic Recreation Specialist transfers the information from the checklist to the PLAA Profile Scoresheet (Appendix D). Under each of the competencies found on the Profile Scoresheet there are the numbers of the corresponding activity found on the activity checklist that fall within that competency. For example, competency one, also known as **'physical skill done alone'** has activities listed 1-20. This means that the activities 1-20 found on the Activity Checklist qualify for competency one. An example:

If Joe's Activity Checklist had an 'S' circled for weightlifting (activity #5 on the checklist), then the Therapeutic Recreation Specialist would write the number five in the S's column on the Profile scoresheet.

If Joe had an 'M' for weightlifting circled then the number for weightlifting would be written in the 'M' column in the Leisure Profile Scoresheet (Appendix D). If Joe had an "I" circled that number would be written in the corresponding column.

INTERPRETING SCORES

Now that the Profile Scoresheet has been completed, the Therapeutic Recreation Specialist is ready to interpret the scores. By referring to the client's PLAA Profile Scoresheet the Therapeutic Recreation Specialist may obtain a more holistic picture of the client's leisure competencies, and begin to get a "picture" of the balance of one's leisure lifestyle. If a client has an 'M' for an activity within a competency area then that competency has been met. It also means that activity can no longer count for other competency areas. Competencies where the client did not have an activity where M was circled are marked "not met". After determining what competencies were not met, the

