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Method. After preliminary item development, two separate reliability studies of the ALIP were conducted. The ALIP was administered twice to 88 adolescents with psychiatric, learning, and physical disabilities and to 28 adolescents without disabilities. In both studies, the second administration took place from 7 days to 14 days after the first. In addition, data from the first administration in both reliability studies were combined to examine the ability of the ALIP to discriminate among adolescents with and without disabilities.

Results. Using Cronbach’s alpha to estimate internal consistency and Pearson product–moment correlations to examine test–retest reliability, acceptable levels of reliability for total scores derived from the ALIP were found in both studies. Virtually all test–retest reliability coefficients for the six total scores exceeded .60 for all participants except those with learning disabilities. Internal consistency estimates for a total score of overall level of interest in the activities exceeded .90 in both studies. Although there were few differences among the four study groups in terms of activity leisure interests or participation, there was some evidence that total scores on the ALIP can discriminate among adolescents with and without disabilities.

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Engagement in play and leisure can promote physical and mental well-being for persons of all ages. However, functions of play and leisure vary across the life span (Christiansen, 1991; Knox, 1993). Childhood play facilitates cognitive, motor, social, and emotional development and provides venues for learning the skills necessary for competence in adulthood (Barnett, 1990; Christiansen, 1991). During adolescence, engagement in play and leisure provides opportunities to further develop these skills, particularly the skills needed to establish relationships with peers, and plays an important role in the development of identity and self-esteem (Fine, Mortimer, & Roberts, 1990; Willis & Willits, 1986). During adulthood, leisure provides a source of satisfaction and allows for respite from work (Vandenberg & Kielhofner, 1982). Among older adults, leisure can provide structure and meaning to time use in order to compensate for role loss due to retirement (Singleton, 1990). At all ages, evaluation of a person’s play or leisure can indicate his or her current quality of life.

Adolescent Leisure

Adolescents spend considerable time engaged in leisure activities. In a study of American middle-class high school students, Csikszentmihalyi and Larson (1984) found that 40% of nonsleep time was spent on leisure pursuits, including socializing, sports and games, and watching television. During adolescence, leisure moves from being primarily family centered, as it is during childhood, to being more peer centered (Brown, 1990). Adolescent leisure activities often take place outside the adult-controlled institutions of family, school, and work and provide opportunities for adolescents to structure their own time (Fine et al., 1990).

Participation in leisure activities may hold many benefits for adolescents. Although adolescents most likely engage in leisure activities for fun and enjoyment (Kleiber, Larson, & Csikszentmihalyi, 1986), it is generally agreed that engagement in leisure activities can facilitate development of social, physical, and cognitive skills as well as self-esteem and identity (Kane & Duryea, 1991; Larson & Kleiber, 1993; Parham, 1996). In addition, involvement in leisure may have long-term consequences for adult role performance and occupational choice (Fine et al., 1990; Super, 1984). For example, in an 18-year follow-up study, Hong, Milgram, and Whiston (1993) found that adolescent leisure activities predicted occupational choice in adulthood and that persons whose adult occupation was consistent with their leisure activities during adolescence had more job responsibility and higher levels of work accomplishment.

The more immediate, short-term psychosocial benefits of leisure participation may be particularly important for adolescents. Coleman and Izso-Ahola (1993) proposed that participation in leisure helps persons cope with life stress both by providing a direct source of stress relief and by facilitating the development of friendships. Adolescents who have high participation rates in leisure activities, such as clubs, social events, sports, and other physical activities, have been found to have higher self-esteem (Brennan, 1985), a stronger sense of competency (Williams & McGee, 1991), and higher life satisfaction (Feldman & Gaiet, 1980) than adolescents with low participation in leisure activities. Moreover, the experience of depression or loneliness has been found to be associated with a sense of boredom, social isolation, and engagement in passive activities such as watching television or listening to music (Larson, Reielli, Richards, Ham, & Jewell, 1990; Moore & Schulz, 1983). A lack of satisfying leisure activities may be associated with behavior problems, including delinquency (Raphael, 1996). Occupational therapy researchers have found leisure interest variables (e.g., number of strong interests, number of interests engaged in) to discriminate between adolescents with and adolescents without psychiatric disorders (Ebb, Coster, & Duncombe, 1989; Smyntek, Barris, & Kielhofner, 1985) and to predict functioning in adolescents with psychosis (Henry, 1994).

Measuring Adolescent Leisure Interests

The importance of developing standardized assessments of psychosocial components of function, including interests, has been emphasized in the occupational therapy literature (Bonder, 1993). Bundy (1993) argued that occupational therapists must develop valid and reliable measures of play and leisure if they are to support the claim that play and leisure are valid occupations. Some efforts to develop assessments of leisure for children and adults have been made (e.g., Bledsoe & Shepherd, 1982; Matsutsuyu, 1969) but none to evaluate leisure in adolescents. The 80-item Neuropsychiatric Institute Interest Checklist (Matsutsuyu, 1969) is one of the most commonly used assessments of leisure. This inventory measures a person’s level of interest in each activity (i.e., strong, casual, no) and has been shown to have acceptable test-retest reliability (Weinstein, 1979). However, the checklist also includes nonleisure activity items (e.g., dusting, ironing) and does not adequately reflect the leisure interests of today’s adolescents. In addition, the checklist measures only a person’s level of interest in certain activities; it does not measure participation or other aspects of activity involvement (e.g., enjoyment).

Although other measures more fully describing activity involvement have been developed, they are also too general, too specific, or too dated to be useful in assessing leisure among today’s adolescents. For example, Scapa (1981) and, later, Kielhofner and Neville (1983) modified Matsutsuyu’s (1969) original Interest Checklist to include questions about past and present participation and about desired future participation in the activities. Gregory’s (1983) 23-item Activity Index (adapted from Nystrom, 1974) and Meaningfulness of Activity Scale (adapted from Whiting, 1975), when used together, provide information.
on activity interest and participation as well as feelings of enjoyment, competence, and autonomy related to the 23 activities. Test–retest reliability for both these measures was found to be acceptable (Gregory, 1983), but both were developed specifically to be used with older adults. Because leisure interests vary across the life span (i.e., the leisure interests of a 15-year-old person are not likely to be the same as those of a 67-year-old person), appropriately age-targeted measures of leisure interests are needed.

Currently, there is no occupational therapy tool specifically designed to measure leisure interests among adolescents. This article presents the results of a series of studies undertaken to develop a new self-report measure of adolescent leisure interests, the Adolescent Leisure Interest Profile (ALIP), which is intended to have both clinical and research utility for occupational therapists.

Method

**Preliminary Item Development**

Preliminary item development for a measure of adolescent leisure interests (Hann, Regele, Walsh, Fontana, & Bentley, 1994) began with open-ended interviews of 10 adolescents (5 boys, 5 girls, 11–15 years of age) that asked the following questions: What do you do for fun or to relax? What do you do when you get together with friends? What types of activities do you do with your family? From the interview data, a paper-and-pencil interest inventory of 80 leisure activity items was generated. The 80 activities were grouped into 10 categories on the basis of similarity of type: socializing activities, family activities, relaxation activities, outdoor activities, exercise activities, sports activities, creative activities, intellectual activities, club or community organizations, and miscellaneous activities.

This initial interest inventory was distributed to 1,000 students in four high schools: two in central Massachusetts (one urban, one rural) and two in central Connecticut (one urban, one rural). Respondents were to indicate their participation in each activity with a yes or no response and to list up to three other, unlisted activities in which they participated. Of the 1,000 inventories distributed, 856 (85.6%) were completed (425 girls, 431 boys, 12–20 years of age). None of the 80 activity items had a participation rate of less than 7%, providing evidence of the items’ content validity.

**Development of the ALIP**

Six “other” activities were consistently identified from the 856 data forms completed for the item development study. These were added to the original list of 80 to create the items for the ALIP. The 86 activity items were grouped into the same 10 activity categories listed previously, in a checklist format. Versions of Gregory’s (1983) Activity Index and Meaningfulness of Activity Scale were adapted to ask six questions about each activity. For each item, the respondent is asked two questions: (a) How interested are you in this? and (b) How often do you do this? For those activities in which he or she participates, the respondent is asked an additional four questions: (a) Why do you do this activity? (b) How well do you do this? (c) How much do you enjoy doing this? (d) Do you do this with others? Item responses are assigned scores, using scales ranging from two points to five points. Mean subscale scores for each of the six questions can be calculated for each of the 10 activity categories. For the first two questions, mean subscales scores are obtained by calculating the average score for all activity items within a category. For the last four questions, mean subscale scores are obtained by calculating the average score only for items where the respondent has indicated participation in the activity. Mean total scale scores for each of the six questions can be calculated similarly.

**First Reliability Study—Adolescents Without Disabilities**

**Participants and Procedure**

Twelve male and 17 female high school and college students without disabilities (mean age = 16.55 years, SD = 1.48, range = 14–19 years) participated in the first ALIP test–retest reliability study (Brophy et al., 1995). The 24 high school students were recruited from a rural high school in central Massachusetts. They completed both administrations of the ALIP during study hall sessions, with the second administration of the ALIP occurring 1 week after the first. The 5 college students were recruited from a 2-year college in central Massachusetts. They completed both administrations of the ALIP in a dormitory room, again, with the second occurring 1 week after the first. One female college student did not complete the second administration, reducing the number of participants to 28. Participants were provided written instructions on completing the ALIP, and data collectors were present at each administration to answer questions.

**Results**

Using data from the first administration of the ALIP, internal consistency estimates (Cronbach’s alpha) were calculated for the subscale scores (i.e., the activity categories) and total score on the first question (i.e., How interested?). The socializing (.80), family (.81), and outdoor (.80) activities subscales showed the highest internal consistency. Coefficients for the other subscales ranged from .58 to .69; the coefficient for the total score was .92. Internal consistency coefficients of .80 meet a standard for acceptable reliability (Benson & Clark, 1982).

Test–retest reliability of the subscale scores and the total scores for all six ALIP questions was examined with Pearson product–moment correlations (see Table 1). Except for the “Others or alone?” questions (.53), the correlations for the total scores exceeded a standard for acceptable test–retest.
reliability of .60 (Benson & Clark, 1982). In addition, 16 (80%) of 20 subscale scores for the first two questions (i.e., How interested? How often?) exceeded .60. However, some of the subscale scores for the other four questions (i.e., Why? How well? How much enjoy? Others or alone?) showed lower reliability than acceptable. These correlations ranged from -.33 to .98; only 14 (35.0%) of 40 exceeded .60, and 19 (47.5%) fell below .40. These lower correlations may have been due to low variability on some subscales, to the wording of some of the activity items, or to lack of clarity in the directions given to the participants. Furthermore, no data were collected regarding events that might have occurred between the test and retest that could have affected reliability.

After the first reliability study was completed, the ALIP was sent for review to a small group of occupational therapists with experience in working with adolescents. The reviewers were asked to comment on the relevance of the activity items for adolescents, the relevance of the questions, and the overall clarity of the ALIP. On the basis of their feedback and of potential problems suggested by the findings of the first reliability study, revisions to the ALIP were made, including rewording some activity items and questions and developing more detailed directions for completing the ALIP. A second reliability study of the ALIP with adolescents with disabilities was then conducted.

**Second Reliability Study—Adolescents With Disabilities**

**Participants and Procedure**

Eighty-eight adolescents with various disabilities, recruited from five different hospitals and schools in Massachusetts and Rhode Island, participated in the second ALIP test–retest reliability study. The participants were 46 girls and 42 boys (mean age = 15.97 years, SD = 2.98, range = 12–21 years) and included 27 adolescents with psychiatric disabilities, 33 with learning disabilities, and 28 with physical disabilities. Seventy-nine (89.8%) were Caucasian, 5 (5.7%) African-American, and 2 (2.3%) Hispanic; information on race was missing for 2 participants. Adolescents with current psychotic symptoms, severe depression, severe mania, or an IQ of less than 70 were excluded from the study.

Occupational therapists in each of the five data collection sites recruited and obtained consent from the participants and from parents or guardians of participants under 18 years of age. These data collectors were instructed to administer the ALIP in individual or small group (three–five-person) sessions, to encourage participants to be honest in their responses and emphasize that there were no right and wrong answers, and to provide assistance (e.g., reading or physical) to those who needed it, but not to provide direct guidance on how to respond to specific questions. Participants were allowed as much time as needed to complete the ALIP; most completed it within 30 min. When at least 7 days, but not more than 14 days, had passed, the data collectors administered the ALIP a second time in the same manner as the first administration. The data collectors also completed a brief demographic form about the participants and noted whether any event had occurred in the participant’s life between the two administrations that might affect reliability (e.g., a major change in clinical sta-
Results

Analysis of variance revealed a significant difference in age among the three study groups, $F(2, 85) = 39.54, p = .0001$, and post hoc analyses showed that all three groups were significantly different in age at the .05 level. The participants with learning disabilities were the youngest ($M = 13.45$ years, $SD = 2.22$, range = 12-21 years), followed by those with psychiatric disabilities ($M = 16.66$ years, $SD = 1.88$, range = 13-20 years) and those with physical disabilities ($M = 18.29$ years, $SD = 2.35$, range = 13-21 years). There were no significant gender differences among the three groups. Only five participants were identified by the data collectors as having experienced an event between the two administrations of the ALIP that might affect reliability.

Again, using data from the first administration of the ALIP, internal consistency estimates (Cronbach’s alpha) were calculated for the subscale scores (i.e., the activity categories) and total score on the first question. The socializing (.72), family (.77), outdoor (.78), intellectual (.77), clubs or organizations (.80), and miscellaneous (.71) activities subscales showed the highest internal consistency. Coefficients for the other subscales ranged from .59 to .66. The coefficient for the total score was .93.

As in the first study, Pearson product–moment correlations were calculated to examine test–retest reliability of the subscale scores and the total scores for all six ALIP questions (see Table 2). To some extent, these correlations were similar to those obtained with the participants without disabilities in the first reliability study. The correlations for the six total scores all exceeded .60. In addition, as with the participants without disabilities, the correlations for the subscale scores for the first two questions were generally high. Fifteen (75%) of 20 exceeded .60. Some of the correlations for the subscale scores for the other four questions were lower than desirable, in particular the correlations for the subscale scores for the “Why?” question. However, for the most part, the correlations for the subscale scores for the last four questions were stronger than those obtained for the participants without disabilities. Fifteen (37.5%) of 40 exceeded .60, and only 6 (15%) fell below .40 compared with 19 among the participants without disabilities.

Table 3 presents test–retest reliability coefficients for the total scores of the three study groups. Scores were most stable among the participants with psychiatric disabilities (.62–.89), followed by those with physical disabilities (.56–.88) and those with learning disabilities (.50–.75).

Combined Data From First Administrations of the ALIP in Both Reliability Studies

Data collected during the first administrations of the ALIP in both reliability studies were combined into a single data set in order to describe the leisure interests and participation of adolescents with and without disabilities and to examine the ability of the ALIP to discriminate among the four study groups (i.e., three with disabilities and one without). To examine leisure interests and participation among the participants, mean scores on the first (How interested?) and second (How often?) questions were calculated for each activity item (see Tables 4 and 5). Not surprisingly, many of the activities were common to all four groups. All four groups indicated a strong interest in listening to music, hanging out with friends, going to parties, going to movies, and taking vacations, although there were some differences (see Table 4). For example, dating appeared in the top 10 only for the participants with psychiatric disabilities and the participants without disabilities; basketball appeared only for the participants with learning disabilities. In addition, both the participants with psychiatric disabilities and the participants with physical disabilities indicated a rather strong interest in sleeping late, which did not appear in the top 10 for the other two groups.

Even stronger similarities in terms of activity participation among the four groups were found (see Table 5). Although in slightly different order, the top four activities were the same for all four groups: listening to music, hanging out with friends, watching television, and talking on the phone. Again, some differences were seen. For example, participants with learning disabilities indicated more participation in physical activities (i.e., basketball, bicycling, roller-skating). Drawing or painting appeared in the top 10 only for participants with psychiatric disabilities, while studying math appeared only for participants with physical disabilities, and going to parties appeared only for participants without disabilities.

Finally, to examine the ability of the ALIP to discriminate among the four study groups, mean total scores on the six questions were calculated for each group (see Table 6). Analysis of covariance (controlling for age) and post hoc analyses were used to examine differences among the four groups on the six total scores. Because of the exploratory nature of the analyses, alpha for the post hoc analyses was set at .10. Significant ($p < .01$) and near significant ($p < .07$) differences among the four groups were detected for three questions (i.e., How interested? How often? How much enjoy?). With age controlled for, the participants with psychiatric disabilities were different from the participants with learning disabilities on all three questions ($p < .10$) and were different from the participants without disabilities on the first question ($p < .10$). Across all comparisons among the four groups on these three questions, the pattern of differences was the same (see Table 6). The participants with psychiatric disabilities reported a higher level of interest and more frequent participation across all activities than did the participants in the other three groups but reported lower levels of enjoyment. Although there were near-significant differences on the “How well?” question...
between the participants with psychiatric disabilities and participants with learning disabilities, this difference was mostly accounted for by the difference in age. There were no significant differences among the four groups on the other two questions (i.e., Why? Others or alone?)

Discussion

Overall, the results of these studies indicate that the ALIP has both good internal consistency and test–retest reliability when administered to adolescents with and without disabilities. For the most part, the internal consistency and test–retest reliability for the total scores exceeded established standards across the four study groups. Only the participants with learning disabilities had lower test–retest reliability for the total scores than desirable. Three factors may account for this. First, although data collectors were instructed to administer the ALIP in individual or small group sessions, the participants with learning disabilities were recruited from a public school setting, and the ALIP was administered to them in a larger classroom setting. In addition, all of these participants had a language-based learning disability, and they were, as a group, younger than the participants in the other three groups. The environmental distractions and the lack of individualized attention while completing a task with relatively heavy language demands may account for the lowered reliability among these younger participants.

For both the participants with and the participants without disabilities, the test–retest reliability coefficients for the first two questions dealing with activity interest level and frequency of activity participation were consistently stronger than those for the last four questions that concerned feelings about leisure activities (except for the “Others or alone?” question). The consistency of this finding across the different groups suggests that certain aspects of leisure involvement are more stable than others. Although the participants were fairly consistent in reporting their interest and participation in leisure activities, their feelings of competence and enjoyment in leisure activities were less stable. This finding is not surprising. The literature on self-perceptions among adolescents suggests that adolescent thinking about the self can be volatile (Harter, 1990). In the present study, both participants with and participants without disabilities showed lower test–retest reliability on the subscales dealing with feelings about competence and enjoyment in leisure activities. In fact, among the participants without disabilities, there was a negative correlation for the competence in intellectual activities subscale (−.33). Although not significant, this negative corre-

<table>
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<tr>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Exercise activities</td>
<td>.76***</td>
<td>.75***</td>
<td>.36**</td>
<td>.60***</td>
<td>.54***</td>
<td>.72***</td>
</tr>
<tr>
<td>Sports activities</td>
<td>.78***</td>
<td>.80***</td>
<td>.45**</td>
<td>.62***</td>
<td>.56***</td>
<td>.51***</td>
</tr>
<tr>
<td>Creative activities</td>
<td>.76***</td>
<td>.75***</td>
<td>.63***</td>
<td>.48***</td>
<td>.63***</td>
<td>.61***</td>
</tr>
<tr>
<td>Intellectual activities</td>
<td>.71***</td>
<td>.64***</td>
<td>.59***</td>
<td>.56***</td>
<td>.64***</td>
<td>.70***</td>
</tr>
<tr>
<td>Clubs or organizations</td>
<td>.73***</td>
<td>.71***</td>
<td>.48**</td>
<td>.73***</td>
<td>.57***</td>
<td>.26</td>
</tr>
<tr>
<td>Family activities</td>
<td>.58***</td>
<td>.54***</td>
<td>.62***</td>
<td>.61***</td>
<td>.65***</td>
<td>.71***</td>
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<td>Socializing activities</td>
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<td>.79***</td>
<td>.50***</td>
<td>.58***</td>
<td>.52***</td>
<td>.58***</td>
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<tr>
<td>Relaxation activities</td>
<td>.68***</td>
<td>.38***</td>
<td>.04</td>
<td>.67***</td>
<td>.55***</td>
<td>.62***</td>
</tr>
<tr>
<td>Outdoor activities</td>
<td>.70***</td>
<td>.79***</td>
<td>.21</td>
<td>.50***</td>
<td>.33*</td>
<td>.47***</td>
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<tr>
<td>Miscellaneous activities</td>
<td>.63***</td>
<td>.53***</td>
<td>.10</td>
<td>.40***</td>
<td>.43***</td>
<td>.59***</td>
</tr>
<tr>
<td>Total</td>
<td>.78***</td>
<td>.77***</td>
<td>.62***</td>
<td>.74***</td>
<td>.68***</td>
<td>.78***</td>
</tr>
</tbody>
</table>

Note. n = 88. Numbers in parentheses indicate the number of participants who participated in at least one activity within the category. *p < .05, **p < .01, ***p < .001.

Table 3

Test–Re test Reliability for Total Scores on the Adolescent Leisure Interest Profile of Adolescents With Disabilities

<table>
<thead>
<tr>
<th>Question</th>
<th>Psychiatric Disabilities (n = 27)</th>
<th>Learning Disabilities (n = 33)</th>
<th>Physical Disabilities (n = 28)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How interested?</td>
<td>.87**</td>
<td>.53*</td>
<td>.88**</td>
</tr>
<tr>
<td>How often?</td>
<td>.89**</td>
<td>.50*</td>
<td>.80**</td>
</tr>
<tr>
<td>Why?</td>
<td>.62**</td>
<td>.69**</td>
<td>.56*</td>
</tr>
<tr>
<td>How well?</td>
<td>.87**</td>
<td>.55**</td>
<td>.74**</td>
</tr>
<tr>
<td>How much enjoy?</td>
<td>.75**</td>
<td>.53**</td>
<td>.71**</td>
</tr>
<tr>
<td>Others or alone?</td>
<td>.86**</td>
<td>.75**</td>
<td>.72**</td>
</tr>
</tbody>
</table>

Note. n = 88. *p < .01, **p < .001.
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Table 4
The Top 10 Activities From the Adolescent Leisure Interest Profile Most Preferred by Adolescents With and Without Disabilities

<table>
<thead>
<tr>
<th>Psychiatric Disabilities (n = 27)</th>
<th>Learning Disabilities (n = 33)</th>
<th>Physical Disabilities (n = 28)</th>
<th>Without Disabilities (n = 29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listening to music</td>
<td>1. Hanging out with friends</td>
<td>1. Watching TV</td>
<td>1. Listening to music</td>
</tr>
<tr>
<td>5. Taking vacations</td>
<td>5. Going to movies</td>
<td>5. Sleeping late</td>
<td>5. Taking vacations</td>
</tr>
</tbody>
</table>

Note: Activities with the same number denote the values.

Table 5
The Top 10 Activities From the Adolescent Leisure Interest Profile Most Often Done by Adolescents With and Without Disabilities

<table>
<thead>
<tr>
<th>Psychiatric Disabilities (n = 27)</th>
<th>Learning Disabilities (n = 33)</th>
<th>Physical Disabilities (n = 28)</th>
<th>Without Disabilities (n = 29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Listening to music</td>
<td>1. Hanging out with friends</td>
<td>1. Listening to music</td>
<td>1. Listening to music</td>
</tr>
<tr>
<td>5. Sleeping late</td>
<td>5. Playing basketball</td>
<td>5. Reading</td>
<td>5. Riding in a car</td>
</tr>
</tbody>
</table>

Note: Activities with the same number denote the values.

lation suggests fairly substantial changes in feelings about competence in intellectual activities between the first and second administrations for at least some of these participants. All but four participants without disabilities came from the same public school setting. It may be that they received exam grades or a report card in the interval that changed their perceptions of their competence in intellectual activities, but data on this were not available. Because only five of the participants with disabilities were identified as having an intervening life event, an examination of the impact of such an event on reliability could not be made.

The lower test–retest reliability on some of the subscale scores for the “Why?” and “Others or alone?” questions may be due to low variability in responses. For example, if most or all of the participants indicated that they participated in the activities within a specific category (e.g., relaxation activities) because they want to rather than have to, variability in the scores would be lowered, and the correlation would potentially be depressed. Standard deviations on some subscale scores for these two questions suggest that this may be the case. Beyond this, as with the questions regarding feelings of competence and enjoyment, it may be that participants’ responses to questions about why and with whom they do leisure activities are naturally somewhat unstable.

Overall, the reliability coefficients for subscale and total scores on the last four questions were higher among the participants with disabilities than those without. The improvement in reliability of the ALIP from the first study to the second may be due to improved written instructions and to improved guidelines given to the data collectors in the second study. In addition, participants in the second study were paid $5. Because they were paid only after the second administration, this small compensation may have motivated the participants with disabilities to be a bit more earnest in their participation than the participants without disabilities, who were not paid.

The combined data examining activity interest level and activity participation showed considerable similarity among the participants in both studies. The differences that emerged among the groups may have more to do with the settings from which they were recruited and the differences in their ages than with differences in disability status per se. For example, sleeping late is relatively high on the list of most preferred and most often-done activities (see Tables 4 and 5) for the participants with psychiatric and physical disabilities. The majority of these participants were recruited from hospital settings. It may be that the opportunity to sleep late is greater in these settings than it would be for adolescents with psychiatric or physical disabilities living in the community. Because these participants were in hospital settings and those with learning disabilities and without disabilities were in public school settings, the differences in what they report doing (see Table 5) may reflect differences in the activities that are available in hospital versus community settings. Moreover, the greater participation of the participants with learning disabilities in physical activities (i.e., basketball, bicycling, roller-skating) compared with the other participant groups may be a function of their younger age. Previous research has pointed to a
decline in participation in physical activities among older adolescents (Kirshnit, Ham, & Richards, 1989).

These data suggest that adolescents with disabilities are more like than unlike their peers without disabilities in terms of the activities in which they are interested and participate. The data are consistent with previous research suggesting that adolescents both prefer and spend much of their free time in passive leisure activities, such as listening to music or watching television, or in nonstructured social activities, such as hanging out with friends, talking on the phone, or riding in a car (Csikszentmihalyi & Larson, 1984; Kleiber et al., 1986). These data do not suggest that adolescents with disabilities can be distinguished from adolescents without disabilities on the basis of their leisure interests and participation. Similar findings have been reported by Larson et al. (1990), who found that adolescents with depression appeared very similar to peers without depression in how they spend free time.

However, the comparisons of the total scores across the four study groups (see Table 6) suggest that adolescents with psychiatric disabilities may enjoy leisure activities less than either adolescents with other types of disabilities or adolescents without disabilities. Just under 50% (n = 29) of the participants in this group had major depression. Their lower enjoyment in leisure activities may be due to anhedonia, which is common in depression (American Psychiatric Association, 1994). Somewhat surprisingly, the participants with psychiatric disabilities reported overall more interest and greater participation in the leisure activities on the ALIP. Although the reasons for these differences are unclear, these findings do not suggest that more leisure interests and participation necessarily reflect healthier leisure involvement. A definitive statement about what is healthy in terms of leisure involvement for adolescents is beyond the scope of this article. However, the development of measures such as the ALIP should help move occupational therapy toward a better understanding of this important occupation. Additional data gathered with the ALIP may reveal patterns of leisure interests and participation that are “typical” for adolescents. Such data may lead to a clearer understanding of whether the adolescent whose pattern of leisure interests and participation is not typical is at risk for leisure or social dysfunction. In the clinic, a measure such as the ALIP should be useful as a vehicle to engage adolescents in discussions about their leisure involvement.

Conclusion

The results of these studies suggest that leisure interest and participation can be reliably measured among adolescents with and without disabilities. Although the ALIP appears to be a measure with potential usefulness in both clinical and research settings, further development is needed. The leisure activity items may reflect a geographic bias, having been developed in New England. The activity items may also reflect ethnic or cultural biases; item development was done with adolescents who were overwhelmingly Caucasian. A Spanish version of the ALIP has been developed (Henry, 1997) but has not been subjected to similar studies of content validity and reliability. Although the internal consistency coefficients for the “How interested?” question provide preliminary evidence that the activity items fall within activity categories for certain subscales (e.g., socializing, family, outdoor activities), future factor analytic studies with larger samples should be done. In addition, data from larger, more representative samples would allow for better descriptions of the patterns of leisure interest and participation among adolescents with and without disabilities. Finally, investigations of the concurrent and predictive validity of the ALIP are needed to establish the ALIP’s value as a measure of adolescent leisure involvement.

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References


Table 6

Mean Total Scores on the Adolescent Leisure Interest Profile for Adolescents With and Without Disabilities

<table>
<thead>
<tr>
<th>Question</th>
<th>Psychiatric Disabilities (n = 27)</th>
<th>Learning Disabilities (n = 33)</th>
<th>Physical Disabilities (n = 28)</th>
<th>Without Disabilities (n = 29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>How interested?</td>
<td>1.85</td>
<td>1.67</td>
<td>1.75</td>
<td>1.66</td>
</tr>
<tr>
<td>How often?</td>
<td>2.31</td>
<td>2.07</td>
<td>2.07</td>
<td>2.08</td>
</tr>
<tr>
<td>Why?</td>
<td>1.86</td>
<td>1.88</td>
<td>1.88</td>
<td>1.88</td>
</tr>
<tr>
<td>How well?</td>
<td>2.27</td>
<td>2.48</td>
<td>2.33</td>
<td>2.41</td>
</tr>
<tr>
<td>How much</td>
<td>2.39</td>
<td>2.56</td>
<td>2.50</td>
<td>2.50</td>
</tr>
<tr>
<td>Others or alone?</td>
<td>1.74</td>
<td>1.77</td>
<td>1.80</td>
<td>1.71</td>
</tr>
</tbody>
</table>


Willius, W. L., & Willius, F. K. (1986). Adolescent participation in leisure activities: "The less, the more" or "the more, the more"? *Leisure Sciences, 8*, 189–206.