

Examining the Long Term Effects of Leisure Education on a Sense of Independence and Psychological Well-Being among the Elderly

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In a recently published study, Searle, Mahon, Iso-Ahola, Adam Sdrolia, and van Dyck (1995) reported that an enhanced sense of independence and improved psychological well-being among the elderly resulted from a leisure education intervention. This study reports on a 16-18 week follow-up with 22 of the original 28 subjects to ascertain whether the original results were sustained and if the skills learned through the intervention generalized to other life domains. The results of the follow-up study indicated that the original effects were sustained with the exception of life satisfaction. Importantly, the original effects which showed no impact on a generalized sense of control were not sustained and the experimental group subjects did experience a greater sense of general control over their lives. These results suggest that leisure education has the potential to significantly impact on older adult's sense of independence and that skills learned through leisure education may generalize over time to other life domains.

KEYWORDS: *Leisure education, psychological well-being, locus of control, competence, independence, boredom*

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Introduction

In a recently published study, Searle, Mahon, Iso-Ahola, Adam Sdrolias, and van Dyck (1995) reported that an enhanced sense of independence and improved psychological well-being among the elderly resulted from a leisure education intervention. This research was grounded in the belief that the ability to exercise control over one's life is critical to both psychological and physical health (Rodin, Timko, & Harris, 1985). When people give up personal control, they become helpless and lose the sense of purpose in life as well as the will to live (Seligman, 1975). If independent living is psychologically the essence of human functioning because it promotes physical and psychological health (Deci & Ryan, 1987; Coleman & Iso-Ahola, 1993), it then becomes important to create programs that are likely to enhance a sense of control and competence. This is especially true among those whose sense of independent living has eroded due to various factors and circumstances.

Social learning theory (Bandura, 1977; 1982) proposes that personal competency is an important motivator in human behavior. Bandura postulated a theory of self-efficacy which suggested that a primary motivator for an individual is the perception of competence or personal mastery. Older adults represent a segment of the population whose control may be jeopardized by both changes in physiology and their social environment. Rodin (1986, p. 150) has suggested that "the elderly are doubly vulnerable" to the effects of uncontrollability. Therefore, a leisure education intervention rooted in social learning theory, may well facilitate the enhancement of a sense of independence and well being.

Erosion of a sense of personal control and competence is acute among the elderly (Baltes & Baltes, 1990). Physical ailments alone can lead to such undermining effects (Kimmel, 1990; Fries, 1990). In addition, and unfortunately, institutional care for the elderly is often such that it undercuts rather than promotes a sense of independent living (Langer & Rodin, 1976; Rodin & Langer, 1977). Because leisure is important to older adults (Larson, Zuzanek, & Mannell, 1985; Larson, Mannell, & Zuzanek, 1986), leisure activities can be used as a tool to enhance older adults' sense of control and competence (Searle & Mahon, 1991, 1993).

Leisure education has been touted as a modality that not only increases people's awareness about the importance of leisure but also promotes a sense of personal control and competence (Datillo & Murphy, 1991). In fact, many scholars have suggested that promotion of independent living should be the ultimate goal of leisure education programs (Bullock & Howe, 1991; Bullock & Luken, 1994; Datillo & Murphy, 1991; Dunn, 1981). Searle et al. (1995) have recently demonstrated the efficacy of leisure education in enhancing personal leisure control and leisure competence as well as psychological well being (operationalized as increased life satisfaction and decreased boredom). This field experiment provided empirical evidence of the outcomes from leisure education and demonstrated construct validity of the process.

However, while short term results provide some support for leisure education as an important modality in enhancing a sense of independence and psychological well-being, the question remains, is the effect sustained over time?

This study was designed as a follow up to the study reported by Searle et al (1995) to test the carry over effects of a leisure education program on perceived leisure control, leisure competence, leisure boredom, life satisfaction and a generalized sense of control. The results from the earlier investigation showed that the experimental group had significantly better scores on perceived leisure control, leisure competence, leisure boredom, and life satisfaction. There were no statistically significant differences with respect to the generalized measure of locus of control. It had been expected that if the treatment program was powerful enough, such generalized effects could be expected in a general measure of locus of control. This transfer of enhanced control from the leisure domain to life in general may take longer than the direct improvement in the targeted area of the intervention (i.e., leisure control and competence). Bandura's (1977) theory of social learning suggests that this may well be the case. Bandura suggests that exposure to a social event over time promotes learning. In this case, experiences with strategies to enhance control and competence, which are part of the leisure education intervention, may, over time, result in enhanced perceptions of control in other life domains. This follow-up study sought to test the following hypotheses:

Hypothesis 1: Experimental group subjects would sustain the gains in perceived leisure control, leisure competence, leisure boredom, and life satisfaction derived from the intervention when compared to the control group.

Hypothesis 2: Experimental group subjects would show significantly higher scores on a generalized sense of locus of control compared to the control group.

Method

Subjects

The follow-up study was conducted on 22 of the original 28 volunteer subjects used in the Searle et al. (1995) field experiment. Six subjects were either unwilling or unavailable for participation in the follow-up data collection process. A complete description of the original sampling process is reported in Searle et al. Briefly, the subjects were selected from an earlier study of 1406 older adults who had been interviewed in their home concerning a wide range of issues. One of the items asked whether they had withdrawn from a leisure activity in the past 12 months. Subjects who indicated yes and were resident in the city of Winnipeg (50% of the sample was from outside the city) were contacted to see if they would participate in the study. Thirty original subjects were recruited and randomly assigned to groups. Of that total, 28 completed the first phase. The 22 remaining subjects used in this follow-up study consisted of 12 control group subjects and 10 experimental group subjects (there were 13 experimental and 15 control subjects in the

first study). An analysis comparing those who were unavailable for the follow-up to those who continued in the study showed no discernible differences.

All subjects in the follow-up study were of European descent and were Caucasian. There were two males in the sample (one in each group) and the control group was about one year older than the experimental group on average (mean age for the control group = 76.2 compared to the experimental group = 75.6). There was a greater proportion of widows in the experimental group ($n = 7$) compared to the control group ($n = 4$). None of the subjects among the 22 were still employed. The experimental group subjects also had less education on average than did the control group subjects. There are no observable differences that would warrant concern about the effect of demographic characteristics of the participants.

The subjects were contacted by telephone 16-18 weeks after the completion of the first study. A standard telephone script was developed which ensured that all contact was consistent. When contacted, subjects were reminded that when the first part of the study concluded we advised them that we would be contacting them again to have them complete the same set of questionnaires. Subjects were visited at their homes and again asked for their informed consent to participate. They were advised that their responses would be kept confidential and only grouped data would be reported. During this visit, the subjects completed the questionnaires in the presence of the research team member just as they did in the original experiment.

Instrumentation

The experimental design was one in which both groups (those who received the leisure education intervention versus those that did not) were pre-tested and post-tested on a number of dependent variables: Perceived Leisure Control Scale; Perceived Leisure Competence Scale; Life Satisfaction Index A; Locus of Control Scale; and Leisure Boredom Scale. Details concerning the reliability and validity of the respective scales were reported in detail in Searle, et al. (1995) and were sustained in this iteration of the study. What follows is a brief summary of each scale.

The Perceived Leisure Control Scale was designed by Witt and Ellis (1987) to assess the degree of internality, or the extent to which the individual perceives control of events and outcomes in his or her leisure experiences. There are 17 items contained in this scale. The scale is scored through a straightforward summative procedure. In this study, the higher the score, the higher the feelings of internal control.

The Perceived Leisure Competence Scale was also a product of the work of Witt and Ellis (1987). This scale enables the measurement of perceptions of the degree of personal competence in leisure endeavors. Specifically, the scale examines competence in four areas: cognitive, social, physical, and general. The scale is composed of 20 items. The scale is also scored through a straightforward summative procedure. As with the leisure control scale, the higher the score, the higher the feelings of leisure competence.

The Life Satisfaction Index A was developed by Neugarten, Havighurst and Tobin (1961) and revised later by Wood, Wylie and Sheafor (1969). The scale consists of 13 items which were reverse coded in this study such that high scores indicate high life satisfaction.

The Locus of Control Scale was developed by Levenson (1974). This scale was developed based on a sample of college students but has been used more recently with older adults (Shewchuk, Foelker, & Niederehe, 1990). It is designed to differentiate between two types of external orientation—belief in chance, and belief in control by powerful others, as well as internal orientation. Levenson's (1974) scale of 24 items was modified to a 12 item scale (Shewchuk et al., 1990). The same 12 item modified version of the locus of control scale was utilized in the present study but was reduced to ten items as was used in the original needs assessment study. It had been modified in order to have equal number of items dealing with externality as internality. High scores indicate greater feelings of control.

The Leisure Boredom Scale (Iso-Ahola & Weissinger, 1987; 1990) is intended to measure individual differences in perceptions of boredom in leisure. The scale consists of 16 items and uses a five point Likert response format ranging from strongly agree to strongly disagree. In this application of the scale, the lower the score, the less boredom one is experiencing.

Leisure Education Intervention

The intervention for this study was a modified version of the Community Reintegration Program (CRP) (Bullock & Howe, 1991). This intervention was originally developed as a transitional therapeutic recreation program for persons who have recently moved from a rehabilitation program back into their home community. Bullock and Howe (1991) reported that participants involved in the CRP program successfully re-engaged in activities participated in before their accident, and/or initiated new, alternative activities. The program was modified to ensure that all of the activities, discussions and exercises were appropriate for an older adult population. The original CRP program did, however, have some subjects who were older adults. As a result, minimal modifications were necessary. The detailed week by week plan for the intervention was reported earlier in Searle et al. (1995). The program, in brief, consisted of a sequential series of paper and pencil exercises, videos, discussions, and recreation program activities which served to help the subject assess their interests, obstacles and constraints, determine adaptations as necessary, locations where they could begin to engage in the activity of choice, need for partners, resources, and then actually participate, debrief, and continue the participation. Through this intervention, activities were designed to promote greater control and competence, reduce boredom, and increase life satisfaction.

After each of the experimental group subjects met individually with the Therapeutic Recreation Specialist (TRS) to complete the pre-test (one session), they began the leisure education intervention. Each subject was given

a CRP Participant Guide (Bullock & Morris, 1990). The guide provided the participants with user friendly information on each of the units and a number of exercises. The average number of weeks spent in the leisure education program was 17 (ranged from a minimum of 14 to a maximum of 25).

Prior to the first post-test session, an ongoing developmental action plan was developed by the subject and the Therapeutic Recreation Specialist. In preparation for the termination of the intervention, the Therapeutic Recreation Specialist initiated a process of withdrawal from the lives of the experimental group subjects through decreased contact and then phone only contact, until the process was concluded. This was done in an effort to reduce the effects of the TRS visits and to ensure the results were reflective of the intervention process. The objective of the individual plan was to have the subject re-evaluate and if necessary, revise his/her recreation participation goals to ensure that they would continue to meet his/her needs. Following this, each subject articulated a plan for his or her continued involvement in the recreation activity(s) he or she had initiated.

The control group was contacted three times over the period of the study. In the first instance, they were informed that they had been assigned to the control group and that they were to maintain their current lifestyle. We then arranged a meeting with them at their home to collect the pre-test data on the same variables as the experimental group. The second contact came at the end of the intervention phase of the study when we arranged to meet with them again at their home for the purposes of collecting post-test data. The third contact was to collect the follow-up data reported in this study. Control group subjects received no intervention and were not recipients of other interventions from social service or recreation agencies during the time period of this study.

Analysis

A pre-post experimental design was used in the study. Each of the 22 subjects were pre- and post-tested and then tested again, 16-18 weeks later on the quantitative dependent measures. Descriptive statistics were used to describe the demographic characteristics of both the control and experimental groups. Multiple Analysis of Covariance (MANCOVA) was used to determine whether there was a significant difference between the control and experimental subjects in terms of the dependent measures Perceived Leisure Control, Perceived Leisure Competence, Life Satisfaction Scale A, Locus of Control and Leisure Boredom, controlling for pretest differences. Following the MANCOVA, analysis of covariance was used to determine significant differences between the two groups on the dependent variables separately, controlling for pretest differences.

Results

The Multivariate Analysis of Covariance of the independent variable and the five dependent measures collected during this follow-up was significant

($F = (5,11) 3.21, p < .05$). The results of the analysis of covariance showed that subjects in the experimental group sustained the improvements in their Perceived Leisure Control ($F = (1,19) 17.18, p < .001$), Leisure Competence ($F = (1,19) 17.25, p < .001$), and reductions in Leisure Boredom ($F = (1,19) 13.36, p < .002$.) from pre-test to the follow-up test compared to the control group when pre-test scores were controlled. The direction of the changes in life satisfaction were sustained but the results were not statistically significant. However, there was significant improvement in the generalized measure of locus of control for the experimental group from pre-test to follow-up test compared to the control group ($F = (1,19) 10.05, p < .005$). To reduce the risk of a type I error, the Bonferroni correction was applied to the ANCOVA tests (Pedhazur, 1982; Miller, 1966). This results in a reduction of the acceptable alpha level to .01. As the results indicate, all relationships were sustained at this level of significance. The results of the analysis of covariance are displayed in Table 1.

Discussion

Results generally confirm the first hypothesis that the outcomes arising from the leisure education intervention measured immediately following the completion of the study would be sustained several months later. The second hypothesis predicted that a sense of independence would be generalized to other life domains over time. There was a significant positive effect on a generalized sense of locus of control. This effect may be due to the continual accumulated learning effect. That is, given that control is enhanced by strategies which allow individuals to feel they are better able to determine life events and activities, it may be that once this has been learned, accomplished and reinforced repeatedly in one domain (i.e., leisure), people are then able to transfer those strategies for use in other life domains. If so, one's generalized sense of control grows. This is consistent with Bandura's (1977) notion of social learning which forms the basis, in part, for the leisure education intervention.

In our earlier paper we suggested that the most powerful element in a leisure education intervention may be the opportunity to enhance the degree of choice one has. That is, through the process it is possible to explore the range of choices an individual perceives him or herself having, examine how that choice set can be expanded or otherwise altered to enhance an individual's options and then facilitate actual participation in one or more of the desired activities. It seems that the abilities to make these choices which derive from the process may be quite useful strategies for individuals to use across other life domains if the results concerning the generalized sense of control can be demonstrated in subsequent studies.

The findings provide further evidence to validate the use of a leisure education as a process to foster feelings of competence, control and a sense of independence in older adults. Further validation efforts are necessary in order to extend the findings to other age and ability groups. That is, would the same results be true if the sample was frail and at risk of institutional-

TABLE 1
A Summary of ANCOVAs for the Dependent Measures

	Means and Standard Deviations		ANCOVA*	
	Control Group	Experimental Group	Main Effects	Significance
Leisure Control				
Pre-test	3.34, .41	3.11, .55		
Post-test	3.06, .58	3.91, .50	$F = 25.044, df = 2, 25$	$p < .000$
Follow-up test	2.98, .50	3.64, .35	$F = 17.18, df = 1, 19$	$p < .001$
Leisure Competence				
Pre-test	2.87, .57	2.87, .40		
Post-test	2.67, .70	3.49, .61	$F = 27.144, df = 2, 25$	$p < .000$
Follow-up test	2.71, .31	3.33, .38	$F = 17.25, df = 1, 19$	$p < .001$
Life Satisfaction				
Pre-test	3.27, .63	3.43, .57		
Post-test	3.13, .52	3.90, .62	$F = 15.023, df = 2, 25$	$p < .001$
Follow-up test	3.30, .39	3.62, .46	$F = 3.85, df = 1, 19$	N.S.
Generalized Locus of Control				
Pre-test	3.59, .57	3.86, .31		
Post-test	3.81, .49	4.07, .34	$F = .907, df = 2, 25$	N.S.
Follow-up test	3.51, .41	4.06, .27	$F = 10.05, df = 1, 19$	$p < .005$
Leisure Boredom				
Pre-test	2.27, .64	2.93, .79		
Post-test	2.43, .59	1.97, .76	$F = 14.507, df = 2, 25$	$p < .001$
Follow-up test	2.65, .31	2.11, .57	$F = 13.36, df = 1, 19$	$p < .002$

*ANCOVAs are reported from the first study (pre-test to post-test) and for the follow-up study (pre-test to follow-up test)

zation? It may be that there is an effective point for this intervention after which the effects are negligible. In our earlier study, we suggested that it would be important to determine whether or not the visits of the intervenor are sufficient irrespective of the leisure education program. The results of this study suggest that this may be less of a concern. It is unlikely that subjects would sustain the behaviors following the completion of the visits, if the visits themselves were the only reinforcing agent. The generalized effect demonstrated in this study provide further support for this argument. Notwithstanding these results, a three group experiment, using a control, leisure education, and friendly visit groups, would confirm our inference. The question that remains is whether or not changes in psychological states will result in behavioral changes. These data suggest that behavioral change is more likely to occur, but studies explicitly designed to examine that issue need to be conducted.

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