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Ralph Nilson
University of Regina, Regina, Saskatchewan, Canada

David Weaver
University of Regina, Regina, Saskatchewan, Canada

Carlton Yoshioka
Arizona State University, Tempe, Arizona

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Ralph Nilson
Faculty of Physical Activity Studies
University of Regina
Regina, Saskatchewan, Canada. S4S OA2.

David Weaver
Luther College
Department of Geography
University of Regina
Regina, Saskatchewan, Canada. S4S OA2.

and

Carlton Yoshioka
Department of Recreation Management and Tourism
Arizona State University
Tempe, Arizona 85287

Abstract. *This study examined the psychological and socio-economic dimensions of the leisure experience patterns of the expanding older adult population in the Canadian Great Plains or Prairie region. Survey data were collected from a random sample of 2,969 of persons 65 years of age and older residing in southern Saskatchewan. Results indicated that older adults have a wide range of leisure activities with involvement in numerous individual and community related pursuits. However, when differentiated by season, winter activities tended to be passive, solitary, inexpensive, and home-based activities. Moreover, important psychological dimensions in perceived health and activity of older adults did not emerge from factor analysis. The results are discussed in terms of the need for rational planning policy initiatives providing adequate leisure services within dwindling financial resources for the widely dispersed, aging populations of the Prairie or Great Plains regions of North America.*

The aging of Canada's population is a well documented phenomenon (Stone and Fletcher 1980; Dumas 1987; Statistics Canada 1990). Demographers began to characterize Canada as an "aged society" after the results of the Census of 1971 showed that adults 65 years of age and over comprised

8% of Canada's total population (Searle 1987). The older adult component increased to 11.6% in 1991 (Statistics Canada, Demographic Division 1991). And predictions by Statistics Canada (1985), based on extrapolations from current fertility, mortality, and immigration levels, indicate further national increases to 14.0% by 2001, 16.1% by 2011, and 26.6% by 2031. The needs and characteristics of persons aged 65 and over are thus of growing importance to Canadian society, though these issues are more salient in some regions than in others.

Saskatchewan has the oldest age structure of any Canadian province, with older adults accounting for 13.8% of the total population in 1991 (SHSP 1991). Several factors help to account for the numerical prominence of elderly persons in the province. First, Saskatchewan has experienced declining fertility, and is barely maintaining a replacement level fertility rate of 2.1 children per woman (Dumas 1987). Lower fertility tends to decrease the number and proportion of youthful persons. Second, the life expectancy of Saskatchewan residents, at 73.7 years for males and 80.5 years for females, is slightly higher than the national life expectancy of 73.0 years for men and 79.7 years for women (Statistics Canada, Health Reports 1990). The average age of a population tends to rise with higher life expectancy. Third, as in other agriculture-dependent Prairie provinces and Great Plains states, Saskatchewan has been subject to long-term net outmigration, especially by young people in search of better job opportunities elsewhere. Older adults accounted for only 4.7% of the estimated 33,071 persons who left Saskatchewan during 1988, even though elderly persons comprised 12.8% of the provincial population in that year. The median age of outmigrants from Saskatchewan in 1988 was 25 years, compared to the provincial median age of 30.7 years (Statistics Canada 1990). Similar factors help to account for the older-than-average age structure among the U.S. Great Plains states. In 1987, 12.3% of the U.S. population was 65 or over, but this proportion reached 13.3% in North Dakota, 14.0% in South Dakota, 13.8% in Nebraska, and 13.6% in Kansas (Cockerham 1991).

The elderly population of southern Saskatchewan is not evenly distributed geographically, with some subareas showing greater concentrations of older persons than others. Weaver and Nilson (1991) found that "Towns," with populations of 500 to 5,000 residents, and incorporated "Villages," with under 500 residents, held quite substantial elderly populations. Overall, 21.3% of the population of Towns, and 18.3% of the population of Villages was 65 or older in 1988. These high proportions were due largely to the

outmigration of youth and the inmigration of retired and semiretired farmers into modestly sized and agriculturally-based service centers. Exceptions included communities based upon mining, and communities located within commuting distance of Regina and Saskatoon, which were younger than average. The relative youthfulness of "Rural Municipalities" with 9.7% older adult population disguises a trend of population decline, as the overall population of these units decreased from 272,649 in 1970 (SHSP 1970) to 204,109 in 1992 (SHSP 1992). "Cities" with populations greater than 5,000 jointly exhibited a proportion of 11.7% elderly population in 1988, a figure which closely approximates the proportion for the province as a whole. Indian Reserves were excluded from this study because of the difficulties in obtaining accurate data, but with 3.2% older adult population they are the most youthful entities within the province. Less than half or 45.3% of Saskatchewan's older adults live in Cities, 37.6% reside in Towns and Villages, 15.8% live in Rural Municipalities, and just 1.2% of the province's elderly people live on Indian Reserves. It is apparent that many of Saskatchewan's older adults are geographically dispersed among smaller agriculture service centers, or locationally isolated in individual farmsteads. This geographical dispersion and locational isolation reflects the fact that Saskatchewan exhibits the greatest economic dependency on agriculture, and has the highest proportion of farm-resident population of any Canadian province.

The purpose of this study is to investigate the diverse leisure experiences of southern Saskatchewan's expanding older adult population, and to identify the psychological and socioeconomic factors which are associated with these patterns. "Leisure" is understood as what is voluntarily done during one's "free" time, as opposed to time spent in working for pay, in vital body maintenance, or in other "mandatory" pursuits. Knowledge of elderly leisure experiences will become increasingly pertinent as the older adult population of Saskatchewan and other Great Plains or Prairie jurisdictions continues to grow in both absolute and relative terms. Numerical increase is also likely to promote the social and political influence of elderly interests, and to heighten the need for rational planning policies which recognize diverse patterns of older adult leisure activity. Subsequent sections of the paper offer a brief literature review on the topic of leisure and aging, convey a description of the research methodology of the study, present and analyze the survey findings, and discuss the implications of the study, particularly for Prairie and Great Plains jurisdictions of Canada and the U.S.

Literature Review

The multi-disciplinary field of social gerontology, which focuses on the social experience of aging, has expanded at a level commensurate with the increase in the older adult population (Cockerham 1991). Within the growing body of literature that examines patterns of leisure activity among the elderly, considerable support is evident for the concept of "activity theory" (Havinghurst and Albrecht 1953), which proposes that high levels of life satisfaction are correlated with the maintenance of high activity levels. Beck and Page (1988) concluded that involvement in activities has a positive effect on the psychological well-being of older adults and that this relationship does not vary significantly between informal or formal activities, nor between solitary or social activities. Other studies found a decline in life satisfaction among older adults who voluntarily or involuntarily reduced their activities with increasing age (Palmore 1968; Graney 1975; Peppers 1976; Kaufman 1988). Searle (1987), Mobily (1982, 1984, 1987), McAvoy (1979), McGuire (1980, 1984), and Alberta Recreation and Parks (1988) offer support for activity theory in case studies from the U.S. Great Plains and the Canadian Prairies.

Not all studies fully support activity theory. Some researchers have questioned whether high participation rates in leisure activities necessarily correlate with high life satisfaction levels among older adults (DeCarlo 1974; Hoyt et al. 1980; Agostino et al. 1968; Salamon 1985; Russell 1987; Ward 1979). However, Parnes et al. (1985) suggest that our knowledge of older adult leisure activity is still tentative, since many studies have been based upon small and perhaps unrepresentative samples.

The physical benefits of active leisure pursuits for older adults are well documented (DeVries 1970; Thornton and Collins 1986; Clark et al. 1990; McPherson 1990). According to Shephard (1982:57), "active recreation will not necessarily extend life, but it will improve functional capacity during the remaining years, improving life satisfaction, and allowing the individual concerned a margin of physiological capacity to cope better with the activities of daily living."

The economic implications of a healthier older adult population should not be neglected. Dowdeswell (1982) has predicted that older adults could account for as much as 80% of all hospital patient days in Saskatchewan by the year 2000, and suggests that an appropriate blend of exercise and activity would help reduce the likelihood of illness and accidents and help older people enjoy a happier and healthier life, thereby reducing the social and economic costs of acute and chronic treatment by one-third or more.

Unsurprisingly, several researchers have noted a tendency for overall activity levels to decrease as people age (McPherson and Kozlik 1980; Thornton and Collins 1986). Other researchers have reported that older people tend to participate in a narrower range of activities than younger people (McPherson 1982; Singleton 1984). But Palmore (1968), Atchley (1971), and Peppers (1976) found little or no decrease in the number of leisure activities as persons age. Few dispute, however, that there tends to be a shift from more active to less active pursuits with increasing age. Zborowski (1961) noted a reduction in "participant" activities with a corresponding increase in "spectator" activities. Similar findings were reported by Bultena and Wood (1970) and Keith (1980). Gordon and Gaitz (1976) reported that activities involving a substantial degree of excitement and physical exertion (especially those performed outside the home) were less frequently pursued with increasing age, while a higher frequency was recorded for relaxing and meditative pursuits. What remains unclear is the extent to which this shift from active to passive is due to the physiological effects of aging or to other factors, such as changing interests, diminished financial resources, or a reduction in the number of culturally approved leisure roles and opportunities available to older adults.

Several studies have focused upon the types of leisure activity engaged in by older adults. Health and Welfare Canada (1977) noted that the five most common leisure activities among Canadian older adults were:

(1) watching TV or listening to the radio;
(2) visiting friends or relatives;
(3) reading newspapers, books, or magazines;
(4) having a chat with others on the phone; and
(5) going shopping.

Subsequent studies by McAvoy (1979), McGuire (1980), Searle (1987) and Alberta Recreation and Parks (1988) revealed very similar lists of frequently performed leisure activities among the elderly. In contrast, a study by Harris (1975) revealed a somewhat different list of activities among older adults in the U.S., with the most popular being:

(1) socializing with friends;
(2) gardening and raising plants;
(3) reading;
(4) watching TV; and
(5) sitting and thinking.

With respect to gender, Roadburg (1985) noted variations in the types of activities pursued by men and women. Finally, several studies have considered the degree to which older adults are satisfied with their leisure activity. McGuire (1980) and Searle (1987) both noted a marked discrepancy between what older adults say they actually do in their leisure time, and what they say they would like to be doing. While this discrepancy could be attributable in part to the physiological limitations of aging and financial constraints, it is also possible that social planners at various jurisdictional levels are failing to take adequate account of the legitimate leisure needs and desires of older adults.

Methodology

Sampling Framework

The referent population for this study comprises persons 65 years of age and older in the populated southern ecumene of Saskatchewan, except for those living on Indian Reserves who were excluded from study. A representative sample of 4,800 elderly individuals was derived from a computer generated, randomly selected list of names from the 1988 Saskatchewan Health Covered Population (SHSP 1988). The sample was stratified by settlement type (Cities, Towns, Villages, Rural Municipalities), so that the sample would adequately reflect the urban/rural distribution of elderly population as described above. The sampling procedure alternated male with female, in order to ensure equal representation by gender, although females actually comprised 55.2% of the province's older adult population during the collection year.

Instrumentation and Data Collection

The questionnaire was developed through the amalgamation and modification of questionnaires used in several related studies (Ricardo 1979; Searle 1987; Alberta Recreation and Parks 1988). Preliminary drafts of the questionnaire were pre-tested and revised, following Dillman's "Total Design Method" (Dillman 1978). The final questionnaire, titled "The Saskatchewan Older Adult Leisure Activity Questionnaire," was an eight page booklet with seven major sections. The questionnaire solicited responses for both the dependent variables, which were intended to identify the leisure experience patterns of the referent population, and the independent

variables, which were intended to help to statistically explain the leisure experience patterns of the referent population. Responses to the portions of the questionnaire analyzed in this paper included a section which asked about leisure participation during warm and cold seasons, and about leisure activities that the respondents would like to practice regularly. It was deemed relevant to study activity patterns differentiated according to the warm season (May to September) and the cold season (October to April) season, given the temperature extremes characteristic of Saskatchewan's continental climate. Another pertinent section of the survey contained items related to motivations for participation in leisure activities and attitudes toward such activities. The questions asked the respondents to rate the importance of each of several motivational or attitudinal aspects of leisure participation. The final section requested demographic data, including age, gender, income, housing, marital status, education, retirement status, and location by municipality type.

Data were collected through a self-administered mail-out/mail-return format with reminder cards and a second questionnaire sent out to non-respondents. Questionnaire packets included a postage paid return envelope.

The overall return rate of questionnaires suitable for study was 61.9%, or a total of 2,969 forms. However, return rates varied from a low of 58.8% in Rural Municipalities to a high of 64.8% in Villages.

Females comprised 51.9% of respondents, which is fairly representative of the actual female proportion of older adults in the province. The average age of respondents was 74.4 years. A majority of respondents were married (69.5%), and most lived in their own house (80.2%) or apartment (9.6%). A plurality had between one and eight years of formal education (38.7%), but relatively few had graduated from university (5.6%). About one-third of respondents reported an income of less than CAN$10,000, and approximately two-thirds described themselves as fully retired.

Results of the Study

Leisure Participation Patterns

Leisure activity participation for each of twenty-five possible activities was measured using a four point scale of participation. Responses ranged from "very often" (coded as 1) to "none" (coded as 4). To summarize the large amount of questionnaire data coded for the nearly 3,000 respondents, and in order to try to uncover consistent patterns or dimensions of leisure

TABLE 1

Factor Analysis Results of Warm Season Activities (N=2457)

Factor	Reliability Alpha	Individual Items	Factor Loadings	Eigen Value	Variance Explained (cum %)
Volunteer Activities	.682	Attend meetings	.678	3.91	15.6
		Volunteer work	.592		
Indoor Activities	.590	Read papers, books	.546	1.44	5.8
		Write Letters, stories	.509		(21.4)
		Chat on phone	.464		
Outdoor Activities	.586	Go for a picnic	.616	.79	3.2
		Go for a drive	.507		(24.6)
		Garden	.503		
Active Activities	.542	Outdoor sports	.719	.79	3.2
		Fitness/exercise	.538		(27.8)
Passive Activities	.532	Just sit and relax	.719	.56	2.3
		Take a nap	.538		(30.0)

participation, coded responses were subjected to principal components factor analysis using varimax rotation. The number of factors retained and rotated was based upon an eigenvalue criterion of 0.50 or greater. Factor analysis results are described for each season treated separately.

Factor analysis of leisure participation responses for warm season activities yielded five factors, which collectively accounted for 30 % of the total variance. Eigenvalues and selected factor loadings are shown in Table 1. The first factor, labeled "Volunteer Activities," captured activities related to volunteer participation, such as attending meetings or doing volunteer work. The second factor highlighted "Indoor Activities," such as reading papers or books, writing letters or stories, or talking on the telephone. The third factor focused on "Outdoor Activities," including picnicking, going for a drive, or working in the garden. The fourth factor targeted "Active Activities," including outdoor sports, and fitness and exercise related activities. The fifth warm season factor grouped "Passive Activities," such as sitting and relaxing, or taking a nap. Alpha reliability coefficients for the five warm season factors

TABLE 2

Factor Analysis Results of Cold Season Activities (N=2457)

Factor	Reliability Alpha	Individual Items	Factor Loadings	Eigen Value	Variance Explained (cum %)
Indoor Activities	.650	Write letters, stories	.694	3.53	14.1
		Chat on phone	.539		
		Read papers, books	.441		
Volunteer Activities	.723	Attend meetings	.783	1.66	6.6
		Do volunteer work	.614		(20.7)
Outdoor Activities	.610	Fitness/exercise	.555	1.09	4.4
		Outdoor sports	.523		(25.1)
		Go for a walk	.404		
Passive Activities	.550	Just sit and relax	.895	.85	3.4
		Take a nap	.408		(28.5)
Organized Social	.510	Visit Senior Centre	.582	.640	2.6
		Play bingo, cards	.457		(31.1)

ranged from 0.682 to 0.532, which suggests that five fairly consistent measurement scales were obtained.

Factor analysis of leisure participation responses for cold season activities also yielded five factors which collectively accounted for 31 % of the total variance. Eigenvalues and selected factor loadings are shown in Table 2. The first four cold season factors, labeled "Indoor Activities," "Volunteer Activities," "Outdoor Activities," and "Passive Activities," strongly echo their corresponding warm season activity dimensions. However, the fifth cold season factor, labeled "Organized Social," pointed to a distinct dimension of cold season leisure participation. Loadings on this factor highlight visiting senior centers and playing bingo and cards. Alpha reliability coefficients for the cold season leisure participation dimensions ranged from 0.723 to 0.510.

Factor scores were calculated for each of the five warm season factors and each of the five cold season factors. These factor scores, which can be thought of as summary respondent rankings on each of the derived dimen-

TABLE 3

Factor Analysis Results of Leisure Motivation (N=2457)

Factor	Reliability Alpha	Individual Items	Factor Loadings	Eigen Value	Variance Explained (cum %)
Achievement	.815	Sense of accomplishment	.820	4.92	28.9
		To be creative	.721		
		To challenge self	.584		
		To improve knowledge, skill	.551		
Personal	.844	To learn about self	.821	.88	5.2
		To learn of others	.604		(34.1)
		To build self confidence	.576		
Change of Pace	.601	To escape boredom	.575	1.02	6.0
		For excitement	.546		(40.0)
		To enjoy change of pace	.428		
Social	.691	To be with family	.713	.53	3.1
		To be in pleasant	.627		(43.3)
		To be with others	.441		
Solitude/Escape	.595	To be alone	.582	.477	2.8
		To escape harsh weather	.429		(46.1)

sions of leisure activity participation, were used as dependent variables in multiple regression analysis aimed to further understanding of patterns of leisure participation. Before examining the regression results, however, attention needs to be given to leisure motivation patterns.

Leisure Motivation Patterns

Leisure motivations were measured using a three point scale asking respondents to indicate from "not at all important" (coded 1) to "very important" (coded 3) how strongly each of seventeen statements related to their leisure participation activities. Again, the pertinent survey questionnaire responses were subjected to principal components factor analysis with varimax rotation to summarize the responses and to determine the dimensionality of leisure participation motivations.

The results shown in Table 3 reveal that the factor analysis of leisure motivation responses yielded five factors, which collectively account for

46% of the total variance. The first leisure motivation factor highlights various internal motivations for accomplishment and self improvement, and therefore was labelled "Achievement." The remaining leisure motivation factors were labeled as "Personal Development," "Change of Pace," "Social" and "Solitude/Escape." Reliability coefficients were found to range from 0.844 to 0.595 for each of the five leisure motivation dimensions. Factor scores also were calculated from this analysis, in order to be used as explanatory or independent variables in multiple regression analysis to statistically explain or predict leisure participation patterns.

Leisure Motivations and Leisure Activity Patterns

Table 4 presents the results of forward selection multiple regression analyses in which each of the five warm season activities factor scores used as dependent variables were regressed against the five leisure motivation factor scores used as independent variables. The desire for "Achievement" emerged as the best, most highly significant predictor of leisure activities during the summer months. Other significant predictors of warm season leisure participation was the desire for "Solitude/Escape," "Personal Development" and "Change of Pace." Appearing as somewhat significant was the motivation to be "Social." Even though the independent variables showed statistically significant coefficients, however, much variance in leisure participation remained statistically unexplained. The warm season leisure participation regressions resulted in cumulative explained variances (i.e., R^2's) of only 7.8% for "Volunteer activities," 6.7% for "Indoor Activities," 6.4% for "Outdoor Activities," 7.6% for "Active Activities," and 8.4% for "Passive Activities."

Table 5 presents the results of a forward selection multiple regression analyses in which each of the five cold season activities factor scores used as dependent variables were regressed against the five leisure motivation factor scores used as independent variables. The cold season multiple regression analyses produced results rather similar to those of the warm season multiple regression analyses. Once again, the "Achievement" variable appeared as the strongest and most consistent predictor of leisure participation. It was the most significant predictor of "Indoor Activities" and "Volunteer Activities," and the second most significant predictor of "Outdoor Activities" and "Passive Activities." However, a difference in cold season activity regressions was the strong significant showing of the "Change of Pace" variable. The desire for a Change of Pace was most significant in the regressions

Table 4

Forward Multiple Regression Analysis of Motives That Predict Warm Season Activities

Factored Activity	Step	Variable Entered	Beta	Multiple R	R^2 Total	F	P
Volunteer Activities	1	Achievement	.246	.246	.060	75.56	.000
	2	Solitude/Escape	.108	.263	.069	43.66	.000
	3	Personal Development	.100	.280	.078	33.09	.000
Indoor Activities	1	Achievement	.249	.253	.064	80.33	.000
	2	Personal Devleopment	.056	.259	.067	42.20	.000
Outdoor Activities	1	Social	.149	.160	.026	30.82	.000
	2	Achievement	.153	.222	.049	30.32	.000
	3	Solitude/Escape	.098	.243	.059	24.43	.000
	4	Change of Pace	.073	.253	.064	20.00	.000
Active Activities	1	Solitude/Escape	.211	.198	.039	47.93	.000
	2	Change of Pace	.127	.237	.056	34.85	.000
	3	Achievement	.106	.261	.068	28.51	.000
	4	Personal Development	.063	.268	.072	22.64	.000
	5	Social	.061	.275	.076	19.07	.000
Passive Activities	1	Achievement	.235	.216	.047	57.44	.000
	2	Change of Pace	.149	.269	.072	45.91	.000
	3	Solitude/Escape	.081	.283	.080	33.86	.000
	4	Social	.058	.288	.084	26.51	.000

Table 5

Forward Multiple Regression Analysis of Motives That Predict Cold Season Activities

Factored Activity	Step	Variable Entered	Beta	Multiple R	R^2 Total	F	P
Indoor Activities	1	Achievement	.266	.267	.071	86.56	.000
	2	Social	.079	.279	.077	47.34	.000
Volunteer Activities	1	Achievement	.247	.237	.056	67.32	.000
	2	Solitude/Escape	.181	.289	.084	51.47	.000
	3	Personal Development	.085	.301	.091	37.44	.000
Outdoor Activities	1	Change of Pace	.137	.148	.022	25.47	.000
	2	Achievement	.139	.197	.038	22.72	.000
	3	Solitude/Escape	.131	.236	.053	22.21	.000
Passive Activities	1	Change of Pace	.198	.202	.041	47.98	.000
	2	Achievement	.166	.256	.065	39.40	.000
	3	Solitude/Escape	.123	.286	.082	33.43	.000
	4	Social	.087	.298	.089	27.47	.000
Organized Social	1	Change of Pace	.221	.257	.066	79.46	.000
	2	Solitude/Escape	.213	.316	.099	62.32	.000
	3	Social	.114	.335	.112	47.30	.000
	4	Personal Development	.093	.348	.121	38.58	.000
	5	Achievement	.064	.353	.125	32.01	.000

involving "Outdoor Activities," "Passive Activities," and "Organized Social" activities as dependent variables. The desire for "Solitude/Escape" also emerged as significant for four of the cold season regression equations. Once again, however, much variance remained unexplained. The cold season leisure participation regressions resulted in cumulative explained variances (i.e., R^2's) of only 5.3% for "Outdoor Activities," 7.7% for "Indoor Activities," 8.9% for "Passive Activities," 9.1% for "Volunteer Activities," and 12.5% for "Organized Social" activities.

Discussion and Conclusions

The major finding of this study was that older adult residents of Southern Saskatchewan engage in a wide range of leisure activities. As determined through mail-out/mail-return questionnaire survey, these diverse leisure activities range from nonstrenuous activities such as reading or relaxing to active sports and fitness activities, as well as attending meetings and performing organized volunteering activities.

Examination of activity types using principal components factor analysis yielded activity categories which are quite reminiscent of those previously identified by Iso-Ahola, Jackson, and Dunn (1994). Those researchers' categories included exercise-oriented, outdoor recreational, home-based, and hobby related activities. Regardless of the leisure activity, the older adults surveyed in Saskatchewan seemed to be highly involved throughout the local area in various individual and community related pursuits.

The actual diversity of older adults' leisure activity patterns in Saskatchewan became most apparent when the sample responses were differentiated on the basis of season. Winter activities tended to be more oriented in the direction of passive, solitary, inexpensive, and home-based activities, while summer activities tended to be less passive and more socially oriented pursuits. This distinction doubtless reflects the greater variety of opportunities available during the summer, which allows older adults to pursue their own individual interests and to interact more easily with others.

To further explore and attempt to better understand the leisure perspective of older adults, the underlying motivations for participation in leisure activities were investigated. The motivational assessment responses reported by respondents also were factor analyzed. The factor analysis results, perhaps not surprising, showed several categories of leisure pursuit motivation to be salient, including: achievement, personal development, change of

pace, social, and solitude and escape. These are typical of leisure motivations categories found by past researchers (Lounsbury and Hoopes 1988; Driver et al. 1991). What is interesting are the motivations types that did not emerge from the factor analysis. Motivation classes related to family, health and exercise, or desire to belong to and interact with nature did not emerge as important concerns. This finding contrasts with earlier studies that suggested these as relevant underlying determinants in perceived health and activity participation by older adults (Riddick and Daniel 1984; Kelly et al. 1987).

Unfortunately, multiple regression analyses aimed at accounting for variations in patterns of participation in various types of warm season and cold season leisure pursuits by elderly residents of Saskatchewan yielded statistically modest results. Although several of the factor analytically derived attitudinal leisure motivation variables were found to account for some of the statistical variation captured by the warm season and cold season leisure activities factor scores, the cumulative levels of explained variance exceeded 10% for only one of the dependent variables, namely "Organized Social" participation during cold season months. By implication, non-attitudinal variables which were not directly modeled in this research must play important additional roles in explaining patterns of leisure participation by persons 65 years of age and older. Future research should be done to verify and extend upon the modest though statistically significant leisure motivations results found for older adults in Saskatchewan.

Planners in the Great Plains or Prairies should attempt to increase cold weather participation opportunities that relate to older adults' interests and levels of leisure motivation. Previous studies (McPherson and Kozlik 1980; Singleton 1984) have suggested lower levels of physical activity were associated with older age (e.g., >75 years), lower education levels, and lower income levels. For older adults in Saskatchewan it was found that lower activity levels were associated with poorer health and lower levels of perceived happiness, as anticipated on the basis of "activity theory" hypotheses. Relatively young, well-educated, and well-off individuals were found to be more likely to possess the health, motivation, awareness, and financial resources to maintain high fitness levels on their own. Recreation planners should consider directing their efforts mainly toward the needs of elderly persons who face more formidable barriers that may prevent them from improving their quality of life through higher leisure activity levels.

Geographical constraints are a special consideration in areas with settlement patterns such as those found in Saskatchewan. A large proportion of

Saskatchewan's older adults reside in small, widely dispersed, and often isolated communities. Youth outmigration and the decline of the agricultural economy have eroded the municipal tax base and contributed to the lack of leisure and other resources in communities ever more elderly in composition. Policy makers and planners will have to decide whether leisure services should be made available in all such settlements, or whether leisure resources, such as swimming pools and recreation centers, should be consolidated in large regional centers where efficient economies of scale can be realized. If spatial concentration is chosen, then an important issue becomes one of promoting adequate and perhaps subsidized transport accessibility to persons in geographically dispersed locations, while at the same time responding to the motivational aspects and leisure attitudes of older community residents. Since problems created by widely dispersed, aging populations and dwindling financial resources are perhaps more prevalent in the Prairie/Great Plains region than in other areas of North America, the experience of Saskatchewan may be instructive to policy makers and planners in other local jurisdictions within this larger region.

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References

Agostino, T., T. Gash and J. Martinson. 1968. The relationship between recreational activity programs and life satisfaction of residents of Thunder Bay homes for the aged. *Activities, Adaptation and Aging* 1:5-16.

Alberta Recreation and Parks. 1988. *The 1988 General Recreation Survey.* Edmonton, AB: Recreation Development Division.

Atchley, R. 1971. Retirement and leisure participation: Continuity or crisis? *The Gerontologist* 11:13-17.

Beck, S. and J. Page. 1988. Involvements in activities and the psychological well-being of retired men *Activities, Adaptation and Aging* 11:31-48.

Bultena, G. and V. Wood. 1970. Leisure orientation and recreational activities of retirement community residents. *Journal of Leisure Research* 2:3-15.

Clark, D., I. Pike, Y. Sywanyk, and B. McCulloch. 1990. *Fitness of Older Adults in Saskatchewan*. Regina, SK: Technical Report published by Saskatchewan Culture, Multiculturalism and Recreation.

Cockerham, W. 1991. *This Aging Society*. Englewood Cliffs, NJ: Prentice-Hall.

DeCarlo, T. 1974. Recreation participation patterns and successful aging. *Journal of Gerontology* 29:416-22.

DeVries, H. 1970. Physiological effects of an exercise training regimen upon men aged 52-88. *Journal of Gerontology* 24:325-36.

Dillman, D. 1978. *Mail and Telephone Surveys: The Total Design Method*. New York: John Wiley and Sons.

Dowdeswell, L. 1982. Where do we go from here? In *Recreation and Fitness for Older Adults: Implications for Programming*, ed. A. Beveridge, 105-12. Regina, SK: Program Development Branch, Saskatchewan Continuing Education.

Driver, B., H. Tinsley, and M. Manfredo. 1991. The paragraphs about leisure and recreation experience preference scales: Results from two inventories designed to assess the breadth of the perceived psychological benefits of leisure. In *Benefits of Leisure*, ed. B. Driver et al., 263-86. State College, PA: Venture Publishing.

Dumas, J. 1987. *Current Demographic Analysis: Report on the Demographic Situation in Canada 1986*. Catalogue No.91-209E. Ottawa ON: Minister of Supplies and Services.

Gordon, C. and M. Gaitz. 1976. Leisure and lives: Personal expressivity across the lifespan. In *Handbook of Aging and Social Sciences*, ed. R. Binstock and E. Shanas, 310-41. New York: Van Nostrand Reinhold.

Graney, M. 1975. Happiness and social participation in aging. *Journal of Gerontology* 30:701-06.

Harris, L. 1975. *The Myth and Reality of Aging in America*. Washington, DC: National Council on the Aging.

Havinghurst, R. and R. Albrecht. 1953. *Older People*. New York: Longmans, Green, and Co.

Health and Welfare Canada. 1977. *Retirement in Canada: Summary Report*. Ottawa, ON: Department of Health and Welfare.

Hoyt, D., M. Kaiser, G. Peters, and N. Babchuk. 1980. Life satisfaction and activity theory: A multidimensional approach. *Journal of Gerontology* 35:935-41.

Iso-Ahola, S., E. Jackson, and E. Dunn. 1994. Starting, ceasing, and replacing leisure activities over the life-span. *Journal of Leisure Research* 26:227-49.

Kaufman, J. 1988. Leisure and anxiety: A study of retirees. *Activities, Adaptation and Aging* 11:1-10.

Keith, P. 1980. Life changes, leisure activities and well-being among very old men and women. *Activities, Adaptation and Change* 1:67-75.

Kelly, J., M. Steinkamp, and J. Kelly. 1987. Later life satisfaction: Does leisure contribute? *Leisure Sciences* 19, 189-200.

Lounsbury, J. and L. Hoopes. 1988. Five-year stability of leisure activity and motivation factors. *Journal of Leisure Research* 20:31-45.

McAvoy, L. 1979. The leisure preferences, problems and needs of the elderly. *Journal of Leisure Research* 11:40-47.

McGuire, F. 1980. The incongruence between actual and desired leisure involvement in advanced adulthood. *Activities, Adaptation and Aging* 1:77-89.

McGuire, F. 1984. A factor, analytic study of leisure constrants in advanced adulthood. *Leisure Sciences* 6:313-26.

McPherson, B. 1982. Leisure lifestyles and physical activity in the later years of the life cycle. *Recreation Research Review* 9:5-15.

McPherson, B. 1990. *Aging as a Social Process: An Introduction to Individual and Population Aging.* 2nd ed. Toronto: Butterworths.

McPherson, B. and C. Kozlik. 1980. Canadian leisure patterns by age: Disengagement, continuity, or ageism? In *Aging in Canada: Social Perspectives*, ed. V. Marshall, 113-22. Don Mills, ON: Fitzhenry and Whiteside.

Mobily, K. 1982. Physical activity and aging. In *Perspectives on Leisure and Aging in a Changing Society*, ed. M. Teague et al., 385-425. University of Missouri: Department of Recreation and Park Administration.

Mobily, K. 1987. Leisure, lifestyle and lifespan. In *Aging and Leisure*, ed. R. MacNeil and M. Teague, 155-80. Englewood Cliffs, NJ: Prentice-Hall.

Mobily, K., D. Leslie, R. Wallace, F. Kohout, and M. Morris. 1984. Factors associated with the aging leisure repertoire. *Journal of Leisure Research* 3:338-43.

Palmore, E. 1968. The effects of aging on activities and attitudes. *The Gerontologist* 8:259-63.

Parnes, H. et al. 1985. *Retirement among American Men.* Toronto: Lexington Books.

Peppers, L. 1976. Patterns of leisure and adjustment to retirement. *The Gerontologist* 16:441-46.

Ricardo 1979. Outdoor recreation survey. Ph.D. diss. Texas A & M University.

Riddick, C. and S. Daniel. 1984. The relative contribution of lesiure activities and other factors to the mental health of older women. *Journal of Leisure Research* 16:136-48.

Roadburg, A. 1985. *Aging: Retirement, Leisure and Work in Canada*. Toronto: Methuen Publications.

Russell, R. 1987. The importance of recreation satisfaction and activity participation to the life satisfaction of age segregated retirees. *Journal of Leisure Research* 19:273.

Salamon, M. J. 1985. Sociocultural role theories in the elderly: A replication and extension. *Activities, Adaptation and Aging* 7:111-22.

Searle, M. 1987. *Leisure and Aging in Manitoba: A Report to Manitoba Culture, Heritage and Recreation*. Winnipeg, MB: University of Manitoba.

Shephard, R. 1982. Physiological aspects of recreational activity in the older adult. *Recreation Research Review* 9:48-65.

Saskatchewan Health Services Plan (SHSP). 1970. *Covered Population, June 30, 1970*. Regina, SK: Ministry of Health.

Saskatchewan Health Services Plan (SHSP). 1988. *Covered Population, June 30, 1988*. Regina, SK: Ministry of Health.

Saskatchewan Health Services Plan (SHSP). 1991. *Covered Population, June 30, 1991*. Regina, SK: Ministry of Health.

Saskatchewan Health Services Plan (SHSP). 1992. *Covered Population, June 30, 1992*. Regina, SK: Ministry of Health.

Singleton, J. 1984. Outdoor recreation participation patterns among the elderly. *Activities, Adaptation and Aging* 6:8189.

Statistics Canada. 1985. *Population Projections for Canada, Provinces and Territories, 1984-2006*. Catalogue No.91-520. Ottawa, ON: Minister of Supply and Services Canada.

Statistics Canada. 1989. *Canada Year Book 1990*. Ottawa: Minister of Supply and Services Canada.

Statistics Canada. 1990. *Postcensual Annual Estimates of Population by Marital Status, Age, Sex, and Components of Growth for Canada, Provinces and Territories. June 1, 1989*. Volume 7. Catalogue No.91-210. Ottawa, ON: Minister of Supplies and Services Canada.

Statistics Canada, Health Reports. 1990. *Life Tables: Canada and Provinces 1985/1987.* Catalogue No.82-003. Ottawa, ON: Ministry of Supply and Services Canada.

Statistics Canada, Demographic Division. 1991. *Postcensual Annual Estimates of Population by Marital Status, Ace, Sex, and Components of Growth for Provinces and Territories. June 1,1990.* Volume 8. Catalogue No.91-210. Ottawa, ON: Minister of Supply and Services Canada.

Stone, L. and S. Fletcher. 1980. *A Profile of Canada's Older Population.* Montreal, QU: The Institute for Research on Public Policy.

Thornton, J. and J. Collins. 1986. Patterns of leisure and physical activities among older adults. *Activities, Adaptation and Aging* 8:5-28.

Ward, R. A. 1979. The meaning of voluntary association participation to older people. *Journal of Gerontology* 34:438-45.

Weaver, D. and R. Nilson. 1991. *Older Adults in Saskatchewan: A Geographic Perspective.* Regina, SK: Technical Report published by Saskatchewan Seniors Mechanism.

Zborowski, M. 1961. Aging and recreation. *Journal of Gerontology* 17:302-09.1.