

# The Recreational Sports Lifestyle of Elder in Taiwan

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**Abstract.** The lifestyle dimensions were used as reference and the 19 types of recreation experiences were incorporated for the design of a recreational sports lifestyle scale for elder. A recreational sports scale for elder was developed in this study. 11 factors to elder's lifestyle were identified. Through cluster analysis, all the subjects were divided into 5 groups: open-minded and casual type, rule-abiding and cautious type, traditional conservative type, shrewd and autonomous type and conservative planning type. The results of the study show that elder of open-minded and casual type, rule-abiding and cautious type, traditional home-bound type and shrewd and autonomous type dislike green exercise, It was also found that elder of open-minded and casual type, shrewd and autonomous type and conservative planning type enjoy yoga, and that those of open-minded and casual type, rule-abiding and cautious type and shrewd and autonomous type prefer to go to gym to train their bodies.

**Keywords:** Lifestyle, Recreation Experiences, Elder.

## 1. Introduction

Many studies have suggested that the participation of elder in recreational sports can help them get used to their lives and maintain their life satisfaction. However, elder's psychological obstacle, interpersonal obstacle and structural obstacle have all made it difficult for them to take part in recreational sports. Therefore, in addition to the promotion of participation in recreational sports by elder to stay healthy, more attention should also be paid to their internal and external obstacles as well as the improvement of the situation through facilities and arrangement of activities. The understanding of their lifestyles can also provide an insight into their attitudes, values and world views. This study aims to examine the key factors to elder's lifestyles to further examine the relations between their lifestyles and their preferences in leisure activities, thereby to come up with suggestions for the future development of leisure industry. The following are the two purposes of this study:

- (1) Develop a scale on elder's recreational sports lifestyle.
- (2) Look into the differences in their lifestyles and their preferences.

## 2. Theories mentioned in related literature

### 2.1. Lifestyle

The concept of lifestyle has its origin in psychology and sociology, and is used to explore the life patterns of people from various communities or social levels. Lazer (1963)[1] integrates the personality scale from the field of psychology and the motivation scale from the field of sociology to investigate the consumer behavior in regards to marketing. According to the definition of Reynolds and Darden (1974)[2], lifestyle is a combination of three dimensions of Activity, Interest, and Opinion, nicknamed the AIO profile. It has also been widely applied to marketing and many other disciplines, the purpose of which is to find out the

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common features among people of the same community to understand them and further predict their future behaviors (Lin, 2009) [3]. The lifestyle concept put forth by Plummer (1974) [4], which contains three dimensions – Activities, Interest and Opinion (AIO) - is the one that is most often adopted by academics nowadays. In this study, AIO lifestyle was used as reference standards for the design of a questionnaire to classify the lifestyles of elder.

## **2.2. Recreation experience**

Recreation was withdrawn from its traditional definition of activity by Drive & Toucher (1970) [5], who argued recreation is a type of human experience that is based on intrinsically rewarding voluntary engagement during non-obligated time.

Unger and Kernan (1983) [6] suggested that the psychological experience tourists obtained through participation in recreational activities can be divided into six types: sense of psychological content, sense of freedom, sense of dedication, sense of excitement, sense of improvement, sense of a spur of the moment. According to the influence of society, psychology and environment on tourists, Chen (1988) [7] considered that major experiences obtained include: escape from realistic pressure, contact with great nature, appropriate exercise, general studies, escape from personal and social pressures, learning to get along with others, learning to become more independent, self-fulfillment, family reunion, adventure, sense of security, cultivation of leadership and making new friends. Mantredo et al. (1996) [8] proposed that the experiences recreational activity participators wish to obtain be divided into 19 types to cover a wider scope and fully explain participators' expectations for recreational activities.

## **3. Research method**

### **3.1. A recreational sports lifestyle scale for elder**

To gain a better understanding of recreational sports lifestyle, a recreational sports lifestyle scale for elder was designed based on AIO dimensions, and by the incorporation of the 19 recreational experience types proposed by Mantredo et al. (1996) [8].

### **3.2. An investigation into elder' recreational lifestyles and their preferences**

An attempt was made to understand elder's views on the physical environment and psychological factors to their lives and analyse their life patterns and their views toward surrounding environments.

#### **3.2.1 The design of the questionnaire**

- (1) Basic information on subjects: age, sex, occupation, educational level, residence and other demographical variables.
- (2) The research of elder' lifestyle: The AIO scale was adopted to determine the dimension of questions. The 19 recreational experience types were incorporated to develop variable-related question items for the questionnaire. The following are variables used in this study. Activities (hobby, socialization, recreation, community, sports.), Interest (family, fashion, food, media.), Opinion (self, society, politics, education, product, future.)
- (3) Understand the subjects' preferences in their recreational sports: do they go to gym to work out; do they listen to music when exercise; what do they prefer, static or dynamic sports; do they play digital games, and other question items.

3.2.2 Questionnaire survey: The survey was conducted among people aged over 50 between February and March 2011, in which a total of 45 valid responses were received.

3.2.3 Statistic analysis: descriptive statistical analysis, factor analysis, cluster analysis and ANOVA.

## **4. Conclusion and discussion**

### **4.1. The recreational sports lifestyle scale for elder**

Table 1 is the recreational sports lifestyle scale developed in this study, which covers various types of recreation experiences and AIO dimensions.

Table 1 the recreational sports lifestyle scale for elder

Recreation experience type	Lifestyle	No	Lifestyle description
Physical fitness	sports	1	I exercise very often to stay healthy.
Meet new people	socialization	2	I like to interact with people.
Nostalgia	product	3	For the same kind of products, I would trust established brands more and don't want to give new brands a try.
Share similar values	community	4	I take part in the activities arranged by the community for elder.
Risk reduction	product	5	I use assistance tools when exercise.
Independence	self	6	I am a person who pays much attention to life quality.
Risk taking	product	7	I know very well how to manage my assets.
Risk taking	product	8	I am willing to try new gaming products, especially those designed for people of our age, as a recreational activity.
Physical rest	recreation	9	I prefer playing chess and other static recreational activities to dynamic ones like mountain climbing.
Enjoy nature	food	10	I care about my health very much.
Nostalgia	media	11	I am very interested in Chinese culture.
Outdoor learning	socialization	12	I eat out and meet with people very often.
Independence	self	13	I place great importance on the distribution of time between work and recreation.
Escape physical stressors	self	14	I don't want to change my existing lifestyle.
Creativity	politics	15	I discuss current social events with my friends.
Share similar values	society	16	I read newspapers and magazines to understand the current situation of the society.
Family relations	recreation	17	I engage in activities together with my children (or grandchildren) very often.
Achievement/Stimulation	society	18	I agree that it is never too old to learn.
Agreeable temperatures	society	19	I don't have work pressure.
Teach/lead others	society	20	I feel that I am physically and mentally young.
Introspection	self	21	I go to hospital for medical checkups periodically.
Teach/lead others	product	22	I believe that the quality of a product is more important than its price.
Be with considerate people	future	23	I agree that people should have children so that their children can take care them.
Reduce tension	future	24	I would feel that I am abandoned if I am sent to a nursing home.
Independence	self	25	I am able to take care of myself.
Family relations	family	26	I enjoy getting together with my family.
Risk reduction	hobby	27	I enjoy engaging in simple leisure activities at home.
Independence	fashion	28	I know how to use a computer to send and receive e-mails, and surf on the Internet.
Risk taking	education	29	I am not afraid of learning new things.
Creativity	hobby	30	I am interested in digital products.

## 4.2. The different lifestyles and recreational sports preferences among elder

### 4.2.1 The analysis of elder' lifestyle

#### (1) Subjects' basic information

The ages of the subjects ranged between 50 and 80, with an average age of 63.28. 23 of the subjects were males, and 22 females. In terms of educational level, 11% of them were elementary school graduates; 17.8% junior high school graduates; 31.1% senior high school graduates and 40% with a college degree or above. 62.2% of them lived together with their spouses. 51.1% of them had to work to make a living; 31.1% lived on pensions; 15.6% were supported by their children, and 2.2% lived on old-age annuity payments.

#### (2) The factors to elder' lifestyle

A principal component analysis was conducted to extract the key components of elder's lifestyle. Statistic results showed that there were 11 factors whose eigenvalues were larger than 1. The graph of a steep slope suggests that the slope would become level after factor 11. Accordingly, the study was conducted using those 11 factors. Below are the denomination and analysis of those 11 factors:

- A. Interactive exchange: Centering on interaction with family members, Web surfing and sending and receiving e-mails, and not being afraid of learning new things. It is named Interactive exchange.
- B. Self-care: This factor features taking care of one's body, being able to take care oneself, participation in community activities, etc. It is named Self-care.
- C. A peaceful and stable life: This factor is related to enjoying interaction with others, not wanting to change status quo, without work pressure, considering being sent to a nursing home as being abandoned, etc. It is named a peaceful and stable life.
- D. Being eager to learn and try new things: This factor has to do with the belief of "it is never too old to learn", enjoy trying new games, being not afraid of learning new things and so on. It is named being eager to learn and try new things.

- E. Static leisure: This factor focuses on the participation in simple activities. It is named static leisure.
- F. Pragmatism and aggressiveness: This factor is related to the habit of regular exercise, the understanding of social situation, paying attention to product quality, interest in digital products and so forth.
- G. Rule-abiding and friendliness: This factor is associated with using assistance tools in exercise, enjoying playing with grandchildren, the feeling of being physically and mentally young.
- H. Caring actions: This factor has to do with regular engagement in social activities, discussing social issues with friends, going to hospital for medical checkups periodically, etc. It is named caring actions.
- I. Being shrewd and fastidious: This factor is related to paying attention to the quality of life, knowing how to manage one's wealth and participation in simple leisure activities at home.
- J. Being dependent and conservative: This factor has to do with the belief of "people should have children so that their children can take care of them when they are old".
- K. Being precautious: This factor is related to the emphasis on time distribution between work and recreation. It is named being precautious.

### (3) The classification of elder' lifestyles

A cluster analysis was conducted among the 45 subjects based on the values of lifestyle factor analysis. Statistic software SPSS 12.0 was used for the analysis. The tree analysis shows the subjects can be divided into 5 groups based on the weight of each factor and be named accordingly. (Table 2)

Table 2 the analysis of factors to the lifestyle of each group

	Group 1	Group 2	Group 3	Group 4	Group 5
Interactive exchange	0.5957971	0.0927747	-0.6206228	-0.0117532	0.6519344
Self-care	0.2149405	0.2022138	-0.1667609	-0.1877047	-0.6986859
A peaceful and stable life	0.3689266	0.0625262	-0.2483606	-0.0992673	-0.5252346
Being eager to learn and try new things	-0.0298961	0.4120446	-0.1799642	-0.604581	0.782978
Static leisure	0.3058818	0.0693671	-0.4969025	0.7997646	0.0406239
Pragmatism and aggressiveness	-0.3907919	0.1786052	-0.0231944	0.2329105	1.3668556
Rule-abiding and friendliness	-0.5541393	0.8539535	-0.0873199	0.3599371	-0.6891771
Caring actions	-0.4445011	0.2737314	0.382902	0.4337911	-2.410198
Being shrewd and fastidious	-0.5329984	-0.0406875	-0.1208729	1.3677872	1.899336
Being dependent and conservative	-0.3049241	0.0592384	0.516333	-1.8526997	1.2605503
Being precautious	-0.1518013	1.1744503	-0.4471765	-0.7543901	0.2006491

- A. Group 1: The weight of interaction factor is higher, implying that subjects in this group tend to be more open-minded and casual. Accordingly, the group is named open-minded and casual type.
- B. Group 2: In this group, the weight of precaution factor is heavier; as a result the group is named rule-abiding and precautious type.
- C. Group 3: In this group, the factor of being dependent and conservative weighs heavier. Hence, it is named traditional home-bound type.
- D. Group 4: The factor of being shrewd and fastidious weighs the heaviest followed by the factor of being dependent and conservative. Accordingly the group is named shrewd and autonomous type.
- E. Group 5: In this group, the factor of being shrewd and fastidious and the factor of being dependent and conservative weigh the same. As a result, the group is named conservative planning type.

#### 4.2.2 Elder' different lifestyles and recreational sports preferences

In this phase, ANOVA was conducted to analyse the preference difference in recreational sports among different groups. The contents of questionnaires includes : Taichichuan, ballroom dancing, listen to music, go to gym to train one's body, green exercise, swimming, Karaoke and enjoy the happy atmosphere, slow-tempo exercise, in somebody's company, Yoga, feel that riding a bicycle is a strenuous exercise, willing to pay to play recreational games, enjoy sipping tea alone at home, enjoy playing games together with children, have once bought digital game products for the sake of exercise. Statistic results showed that there exist obvious differences ( $P < 0.01$ ) in various recreational sports between the above 5 groups.

## 5. Conclusion and discussion

In this study, the lifestyle dimensions presented by Plummer(1974)[4] were used as reference and the 19 types of recreation experiences put forward by Mantredo et al. (1996)[8] were incorporated for the design of a recreational sports lifestyle scale for elder.

A recreational sports scale for elder was developed. The scale contains 30 questions. Through statistical analyses, 11 factors to elder' lifestyle were identified: interactive exchange, self-care, peaceful and stable life, being eager to learn and fond of trying new things, static leisure, pragmatism and aggressiveness, being rule-abiding and friendly, being shrewd and fastidious, being dependent and conservative, being precautious and sticking to principles. Through cluster analysis, all the subjects were divided into 5 groups: open-minded and casual type, rule-abiding and cautious type, traditional conservative type, shrewd and autonomous type and conservative planning type.

The results of the study show that elder of open-minded and casual type; rule-abiding and cautious type, traditional home-bound type and shrewd and autonomous type dislike green exercise, suggesting that most elder nowadays lack motivation and interest in the contact with the great nature, which is not good to their health. Therefore, it is suggested that elder's needs be better understood to arrange more leisure activities to provide them with opportunities to embrace the great nature. It was also found that elder of open-minded and casual type, shrewd and autonomous type and conservative planning type enjoy yoga, and that those of open-minded and casual type, rule-abiding and cautious type and shrewd and autonomous type prefer to go to gym to train their bodies, indicating that more and more elder can now accept new recreational sports. Additionally, this study also found that elder doesn't like to listen to music when they are engaging in recreational sports.

In addition, experiments were conducted to verify that the use of the 19 recreation experience types as reference for the design of question items was conducive to the development of the lifestyle questionnaire. It is suggested that in the future more evaluations should be conducted on the feasibility of this method.

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