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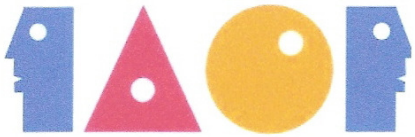

UNDERSTANDING ATTITUDES TOWARDS MUSIC LEISURE ACTIVITY AND THE CONSTRAINTS FACED BY THE ELDERLY

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Abstract

An aging society is rapidly attracting people's attention to geriatric assessment. Due to steady source of income from pension and/or annuity, elderly adults in Taiwan are more willing to allocate their expenditure on leisure. Nonetheless, the impact of traditional Confucian philosophy represents a barrier deterring the senior population from participation of leisure activities. Given that, anecdote evidence often suggests many benefits of music on people of advanced age, the study explores the attitudes of the senior citizens in New Taipei City toward participation of music leisure activity, as well as constraints faced by the elderly. Social interest, intrinsic interest, and escape from boredom were identified as the main attributes of music leisure activity while family constraint and cost constraint were identified as barriers of participation. It was revealed that the sample's gender, education level, income level, and residence showed demographic significance towards the identified attributes. Age group and marital status played no statistical significance towards the identified attributes.

Keywords: music leisure, social interest, intrinsic interest, constraint, boredom escape

Introduction

Due to declining birth rates and increased average life expectancy from medical advances, an aging society is prevalent in many Asia-Pacific regions, which is the case in Taiwan, Korea, and Japan (Kim et al., 1996). The seniors in these regions have similar denominators in that they were baby boomers post World War II; they worked during Asia's golden era of economic expansion; and they typically received sufficient amount of pension accumulated from years of hard work, hence allowing them the affordability for leisure expenditure. However, another similar denominator they share may be barriers to their leisure activity, namely the influence of Confucianism. The culture, lifestyles, and family relationships in Taiwan, Korea, and

Japan (also many other Asian countries) are similar which follow the values and norms of Confucian philosophy in that Confucianism emphasizes hard work and study, with an orientation toward lifetime achievement which does not leave much time for leisure. Although many of today's younger generation places a greater emphasis on self-fulfillment and pleasure, the majority of today's elderly generation still hold Confucian value that hard work is still more important than any other activity (Kamo & Zhou, 1994). As a result, the elder population in Taiwan, Korea, and Japanese is less likely to take part in leisure activities than their Western counterparts (European and North American).

While there have been plenty of studies toward senior travel, studies pertaining to music leisure by the elderly population has been scarce. Medical evidence has frequently suggested that musical participation may preserve cognitive functioning in advanced age (Hanna-Pladdy & MacKay, 2011). Magee and Bowen (2008) even offered the creative use of music for people with complex physical and sensory needs which prevent active participation in previous leisure pursuits. Sarkamo and Tervaniemi (2015) showed cognitive, emotional, and neural benefits of musical leisure activities in rehabilitation of ageing-related neurological illnesses, such as stroke and Alzheimer's disease. Undoubtedly, musical participation by an elderly adult can not only bring positive effects to the individual himself or herself, the residual positive effect may expand to the senior's extended family. A group of medical researchers had studied attitudes toward benefits and barriers of leisure-time physical activity by the elders in community-dwelling settings (Dergance et al., 2003). The goal of this research is to extend previous efforts and understand attitudes towards participation of music leisure activities and constraints faced by the elderly population in Taiwan. The study also aims to segment seniors' demographic profile on identified attributes of music leisure activity and their barriers of participation.

Literature Review

Studies have repeatedly shown older individuals to have higher life satisfaction when they have more participation of leisure activities (Ragheb & Griffith, 1982; Cuenca-Amigo, 2017). In addition, Lennartsson and Silverstein (2001) found socially-integrated leisure activities significantly reduced risk of mortality among elderly people in Sweden. A group of medical researchers also identified leisure activities such as reading, playing board games, playing musical instruments, and dancing have a profound effect of reducing the risk of Alzheimer's disease and vascular dementia on adults older than 75 years of age (Verghese et al., 2003).

Shifting attention to a non-medical standpoint, Guinn (1980) investigated leisure motivations of rest and relation, association with friends/family, physical exercise, learning experience, and self-fulfillment associated with elderly recreational vehicle tourists' demographic profile. McGuire (1984) identified five constraints of leisure activity in a person's later years: time, approval, ability/social, external resource, and physical well-being. Losier et al. (1993) proposed a motivational model of leisure participation among people of age. McCormick & McGuire (1996) examined leisure as a context for interaction within the social structure of older residents embedded in the community. In the study of Dergance et al. (2003), community-dwelling elders

held beliefs about benefits gained from exercise include: mood, shape, health, and improved self-esteem. In the same study, predominant barriers to leisure-time physical activity include: interest, enjoyment, company, knowledge, self-consciousness, and lack of self-discipline (Dergance et al., 2003).

Lee and Tideswell (2005) suggested that senior Koreans when considering travel appeared to be restrained by a culturally ingrained belief (i.e. Confucianism which emphasizes work and study while refraining from time for leisure) that the decision making should be a joint family process and they would feel some form of guilt taking leisure activities. Payne et al. (2006) examined the types of leisure activity correlating to perceived physical and mental health of older adults. A Malaysian study identified elderly people's constraints of leisure activity are mostly due to deterioration of physical health and absence of family member or friends to perform the activity together, as well as education level (Minhat et al., 2012).

Methodology

Due to high cost of living in Taipei City, many nonworking retirees choose to live out their remaining years in the less expensive adjacent New Taipei City, as shown in Figure 1 where New Taipei City surrounds Taipei City.

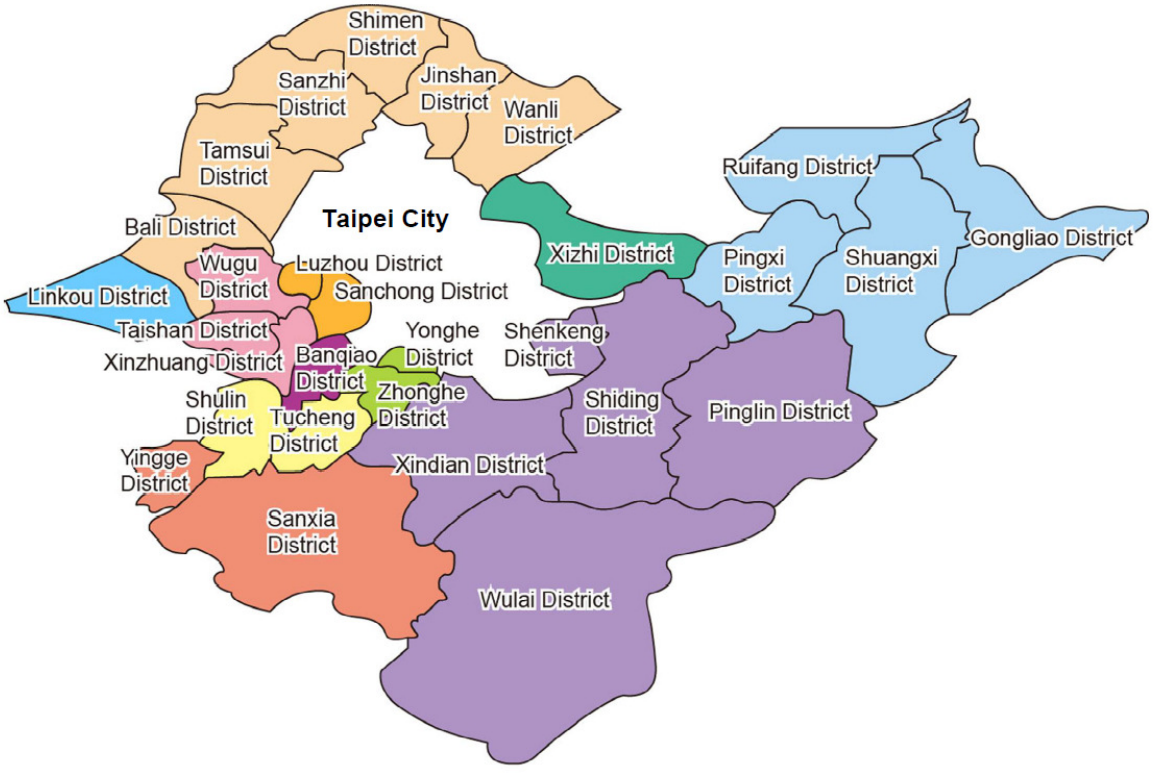

Figure 1. Districts of New Taipei City surrounding Taipei City, Taiwan

The most populated districts of New Taipei City are the Banqiao District, the Sanchong District, the Zhonghe District, and the Xinzhuang District. These four Districts

are situated to the southwest of Taipei City where convenience is aided by the MRT (Mass Rapid Transit) connecting commuters to Taipei City. Hence, sample was randomly chosen across the elder population in Banqiao, Sanchong, Zhonghe, and Xinzhuang.From the literature review, the study developed a 20-item scale to measure seniors' attitudes toward music leisure activity and the constraints faced by the elderly respondents. Questionnaires were distributed evenly across the four most populated districts in New Taipei City, Banqiao, Sanchong, Zhonghe, and Xinz-huang. Samples were taken during weekends between March and October of 2017 in public parks and community centers. The responded questionnaires were rated by a five-point Likert scale (1 = strongly disagree, 2 = tend to disagree, 3 = neutral, 4 = tend to agree, and 5 = strongly agree).

From 200 samples, the demographic profile of the respondents is presented in Table 1 where 85 samples came from male respondents, 108 samples came from female respondents, and 7 returns were invalid. By marital status, majority of the sample were within a marriage situation at the time of survey (76.2%, n = 147). Only 23.8% (n = 46) of the sample were single, divorced, or widowed. By age, majority of the respondents were in the age group of "65 – 70 years old", at 76.7% (n = 148). It is noted that higher-age group seniors tend to stay home as none-leisure participates. Hence, only 44 respondents (n = 22.8%) were in the group of "71 – 75 years old", and one respondent was over 75 years old (n = 0.5%). By education level, majority of the senior population were educated at junior high school or less, at 64.3% (n = 124). Seniors with a high school education represented 29.5% (n = 57), 11 respondents had college education (n = 5.7%), and one respondent had post graduate education (n = 0.5%). By monthly income, 47.67% (n = 92) of the senior population received pension/annuity at "less than NT$20,000", 32.12% ($n$ = 62) of the respondents received "NT$20,001 – NT$30,000", 12.95% (n = 25) of the respondents received "NT$30,001 – NT$40,000", 4.15% (n = 8) of the respondents received "NT$40,001 – NT$50,000". Finally, 6 respondents (3.11%) received "over NT$50,000" monthly. By residence, 48 respondents (24.87%) live in the Banqiao District, 50 respondents (25.91%) live in the Sanchong District, 49 respondents (25.39%) live in the Zhonghe District, and 46 respondents (23.83%) live in the Xinzhuang District.

The collected data (n = 193) were statistically analyzed using SPSS 20 for Windows. The 20-item scale received a Cronbach's alpha score of 0.700, which indicates acceptable reliability. Among the 20 questions, Q11 ("Make new friends through music activity") received the highest score (M = 4.36), followed by Q1 ("I like to sing", M = 4.32), Q10 ("My friends like music", M = 4.30), Q12 ("I like to share music activity with friends", M = 4.20), and Q7 ("I enjoy participation of music activity", M = 4.12), as shown in Table 2. On the other end of the spectrum, Q19 ("Concerned that family members may not like my music activity") received the lowest score (M = 2.95), followed by Q3 ("I own at least one musical instrument", M = 3.01), Q18 ("Concerned that music participation would affect family routine", M = 3.02), Q9 ("Daily lives more appealing from participation of music activity", M = 3.05), and Q17 ("Transportation/time affects my participation intend", M = 3.28). It should be noted that the items receiving the lower mean tend to exhibit greater discrepancy (i.e. higher standard deviation), implying extreme responses from the sample population. Among the 20 items

with the highest standard deviation are: Q18 ("Concerned that music participation would affect family routine", S.D. = 1.741), Q3 ("I own at least one musical instrument", S.D. = 1.186), Q6 ("I routinely spend money on music platform", S.D. = 1.174), Q19 ("Concerned that family members may not like my music activity", S.D. = 1.086), and Q17 ("Transportation/time affects my participation intend", S.D. = 1.018). On the other hand, Items that received the highest consistency (i.e. lowest standard deviation) from the respondents are: Q11 ("Make new friends through music activity", S.D. = 0.671) and Q10 ("My friends like music", S.D. = 0.694).

Table 1. Demographic characteristics of the respondents

Demographic characteristic	Number of respondents	Percentage
Gender		
Male	85	44.04
Female	108	55.96
Marital status		
Single/Divorced/Widowed	46	23.83
Married	147	76.17
Age group		
65 – 70 years old	148	76.68
71 – 75 years old	44	22.80
Over 75 years old	1	0.52
Education level		
Junior high school or less	124	64.25
High school	57	29.53
College	11	5.70
Post graduate	1	0.52
Monthly income		
Less than NT$20,000	92	47.67
NT$20,001 – NT$30,000	62	32.12
NT$30,001 – NT$40,000	25	12.95
NT$40,001 – NT$50,000	8	4.15
More than NT$50,000	6	3.11
Residence		
Banqiao District	48	24.87
Sanchong District	50	25.91
Zhonghe District	49	25.39
Xinzhuang District	46	23.83

Table 2. Mean and standard deviation of each item

Attitudes towards music leisure activity and the associated constraints	Mean	S.D.
Q1. I like to sing	4.32	0.749
Q2. I am a music lover	3.99	0.848
Q3. I own at least one musical instrument	3.01	1.186
Q4. I enjoy old/classical music	3.80	0.975
Q5. I spend money on CD	3.55	1.025
Q6. I routinely spend money on music platform	3.30	1.174
Q7. I enjoy participation of music activity	4.12	0.732
Q8. Participation of music activity gives me a cheerful mood	3.98	0.787
Q9. Daily lives more appealing from participation of music activity	3.05	1.002
Q10. My friends like music	4.30	0.694
Q11. Make new friends through music activity	4.36	0.671
Q12. I like to share music activity with friends	4.20	0.738
Q13. My friends provide me information of music activity	4.07	0.820
Q14. My participation of a music activity increases from a promotion	3.81	0.882
Q15. I prioritize music activity that is cost free	4.01	0.767
Q16. Cost of concert affects my participation intends	3.82	0.784
Q17. Transportation/time affects my participation intends	3.28	1.018
Q18. Concerned that music participation would affect family routine	3.02	1.741
Q19. Concerned that family members may not like my music activity	2.95	1.086
Q20. Worries of daily costs hinder my participation intends	3.47	0.913

Recall that these two items had received high mean, it may be interpreted that the sample population participated in music leisure activities due to personal interest in music and shared common interest with friends. This interpretation is firm by the fact that the samples' responses were consistent (i.e. low standard deviation).

Results and Discussions

Factor analyzing the 20-item scale, the initial Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was found at 0.740, while the Bartlett's test of sphericity also showed significant values (χ^2 = 971.201, d.f. = 190, and p = .000***). Although these figures were acceptable, the factor loadings by four of the 20 items were ambiguous on extracted six attributes. They are: Q3 ("I own at least one musical instrument"), Q5 ("I spend money on CD"), Q6 ("I routinely spend money on music platform"), and Q20 ("Worries of daily costs hinder my participation intend"). After deleting these four items, five attributes were extracted by the factor analysis, as shown in Table 3. It is noted that the KMO value improved slightly (from .740 to .748) by deletion of the four items.

The identified five attributes or barriers for participation of music leisure activities are: "social interest", "intrinsic interest", "escape from boredom", "family constraint", and "cost constraint". These four factors account 60.921% of the total variance. The eigenvalues range from 1.086 to 4.099, which met the

minimum requirement of 1.0. The factor loadings range from 0.401 to 0.710 across the remaining items, which also met the criteria of 0.4 or higher.

Table 3. Factor analyzing participation of music activity by the elderly

Attributes towards participation of music activity	Factor loadings				
	1	2	3	4	5
Factor 1: Social interest (*M* = 4.188)					
Q12. I like to share music activity with friends	.710				
Q11. Make new friends through music activity	.640				
Q13. My friends provide me information of music activity	.617				
Q10. My friends like music	.605				
Q7. I enjoy participation of music activity	.587				
Q14. My participation of a music activity increases from a promotion	.401				
Factor 2: Intrinsic interest (*M* = 4.037)					
Q2. I am a music lover		.653			
Q1. I like to sing		.537			
Q4. I enjoy old/classical music		.458			
Factor 3: Escape from boredom (*M* = 3.555)					
Q9. Daily lives more appealing from participation of music activity			.785		
Q8. Participation of music activity gives me a cheerful mood			.496		
Factor 4: Family constraint (*M* = 3.537)					
Q17. Transportation/time affects my participation intends				.523	
Q18. Concerned that music participation would affect family routine				.465	
Q19. Concerned that family members may not like my music activity				.459	
Factor 5: Cost constraint (*M* = 3.300)					
Q15. I prioritize music activity that is cost free					.480
Q16. Cost of concert affects my participation intends					.475
Eigenvalues	4.099	1.776	1.506	1.280	1.086
Variance (%)	25.618	11.101	9.412	8.001	6.789
Cumulative variance (%)	25.618	36.718	46.131	54.132	60.921

The first factor ("social interest") exhibited a factor mean of 4.188 from six items. This factor explained the largest proportion of the total variance at 25.618%%, with an eigenvalue of 4.099. This factor is associated with common interest in music activities among friends, thus named "social interest". The item with the highest factor loading (FL) is: Q12 ("I like to share music activity with friends") at FL = 0.710, followed by Q11 ("Make new friends through music activity") at FL = 0.640, Q13 ("My friends provide me information of music activity") at FL = 0.617, Q10 ("My friends like music") at FL = 0.605, Q7 ("I enjoy participation of music activity") at FL = 0.587, and Q14 ("My participation of a music activity increases from a promotion") at FL = 0.401. It is insinuated here that the elderly may have been using participation of music leisure activities as a way to socialize with friends.

The second factor ("intrinsic interest") contains three items relating to seniors' interest in music, with a mean of 4.037. This fac-

tor represents 11.101% of the total variance, with an eigenvalue of 1.776. From the highest to lowest factor loadings are: Q2 ("I am a music lover") at FL = 0.653, Q1 ("I like to sing") at FL = 0.537, and Q4 ("I enjoy old/classical music") at FL = 0.458. The third factor ("escape from boredom") accounts 9.412% of the total variance, with an eigenvalue of 1.506. This factor is composed of only two items: Q9 ("Daily lives more appealing from participation of music activity", FL = 0.785) and Q8 ("Participation of music activity gives me a cheerful mood", FL = 0.496) where the mean of these two items is 3.555.

The fourth and fifth factors of attitudes toward participation of music leisure activity concern barriers of participation. The fourth factor ("family constraint") consists three items: Q17 ("Transportation/time affects my participation intends", FL = 0.523), Q18 ("Concerned that music participation would affect family routine", FL = 0.465), and Q19 ("Concerned that family members may not like my music activity", FL = 0.459). This factor, accounting 8.001% of the total variance, has a mean of 3.537 and an eigenvalue of 1.280. The last factor ("cost constraint") is composed of only two items: Q15 ("I prioritize music activity that is cost free", FL = 0.480) and Q16 ("Cost of concert affects my participation intends", FL = 0.475). This factor covers only 6.789% of the total variance, with an eigenvalue of 1.086 and having the lowest mean among all five factors, at M = 3.300.

By one-way analysis of variance (ANOVA), demographic significance was exhibited by gender in "family constraint" and "cost constraint", as shown in Table 4 where female seniors have significantly higher "family constraint" and "cost constraint") than their male counterparts toward participation of music leisure activity, $M = 3.657 > 3.384$ ($p = .020^{*}$) and $M = 3.407 > 3.159$ ($p = .026^{*}$) respectively. Although statically insignificant, male seniors have higher attitudes of "social interest", "intrinsic interest", and "escape from boredom" toward participation of music leisure activity than their female counterparts.

Table 4. Gender difference in participation of music leisure activity

Factors	Gender	N	Mean	S.D.	*F*-value	*p*
Social interest	Male	85	4.214	0.491	0.419	.518
	Female	108	4.165	0.551		
Intrinsic interest	Male	85	4.126	0.646	3.076	.081
	Female	108	3.966	0.611		
Escape from boredom	Male	85	3.641	0.888	1.405	.237
	Female	108	3.491	0.865		
Family constraint	Male	85	3.384	0.867	5.464	.020*
	Female	108	3.657	0.763		
Cost constraint	Male	85	3.159	0.835	5.049	.026*
	Female	108	3.407	0.701		

Significance: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

As shown in Table 5, seniors' marital status had no bearing on the difference of attitude towards participation of music leisure activity. Nonetheless, singles have slightly higher attitudes of "social interest" toward participation of music leisure activity than their married counterparts. Conversely, seniors under a marriage status have higher attitudes of "intrinsic interest", "escape from boredom", "family constraint", and "cost constraint" than their singles counterparts. Similarly, no statistical significance was exhibited among seniors' age groups, as shown in Table 6.

Table 5. Marriage difference in participation of music leisure activity

Factors	Marriage	N	Mean	S.D.	*F*-value	*p*
Social interest	Single	46	4.244	0.612	0.296	.587
	Married	147	4.197	0.470		
Intrinsic interest	Single	46	3.993	0.642	0.231	.632
	Married	147	4.045	0.631		
Escape from boredom	Single	46	3.489	0.932	0.242	.624
	Married	147	3.563	0.871		
Family constraint	Single	46	3.415	0.841	1.316	.253
	Married	147	3.575	0.809		
Cost constraint	Single	46	3.289	0.711	0.011	.917
	Married	147	3.303	0.799		

Significance: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Table 6. Age difference in participation of music leisure activity

Factors	Age	N	Mean	S.D.	*F*-value	*p*
Social interest	(A)	148	4.174	0.536	0.369	.692
	(B)	44	4.205	0.538		
	(C)	1	4.600	–		
Intrinsic interest	(A)	148	4.018	0.645	0.001	.999
	(B)	44	4.016	0.570		
	(C)	1	4.000	–		
Escape from boredom	(A)	148	3.607	0.900	1.649	.195
	(B)	44	3.345	0.785		
	(C)	1	3.000	–		
Family constraint	(A)	148	3.563	0.795	1.022	.362
	(B)	44	3.413	0.910		
	(C)	1	4.333	–		
Cost constraint	(A)	148	3.303	0.753	0.114	.892
	(B)	44	3.250	0.843		
	(C)	1	3.500	–		

(A) = 65 – 70 years old; (B) = 71 – 75 years old; (C) = over 75 years old;
Significance: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

As shown in Table 7, demographic significance was exhibited by the sample's education level in "intrinsic interest (*F*-value = 3.597, $p = .015^{*}$)" and "family constraint (*F*-value = 6.237, $p = .000^{***}$)", where seniors with a college education have significantly lower "intrinsic interest" than their less educated counterparts toward participation of music leisure activity. Due to imbalance of the sample population (i.e. only 1 sample in the "post graduate" group), simulation was not able to perform *post hoc* analysis. Nonetheless, seniors with a high school education have significantly higher "family constraint" toward participation of music leisure activity than seniors under other education group.

Table 7. Education difference in participation of music leisure activity

Factors	Education	N	Mean	S.D.	*F*-value	*p*
Social interest	(A)	124	4.143	0.572	1.572	.198
	(B)	57	4.302	0.405		
	(C)	11	4.236	0.585		
	(D)	1	3.600	–		
Intrinsic interest	(A)	124	4.058	0.597	3.597	$.015^{*}$
	(B)	57	4.055	0.657		
	(C)	11	3.515	0.603		
	(D)	1	3.000	–		
Escape from boredom	(A)	124	3.488	0.859	1.090	.355
	(B)	57	3.682	0.894		
	(C)	11	3.682	0.929		
	(D)	1	4.500	–		
Family constraint	(A)	124	3.364	0.760	6.237	$.000^{***}$
	(B)	57	3.891	0.770		
	(C)	11	3.546	0.898		
	(D)	1	4.333	–		
Cost constraint	(A)	124	3.288	0.793	0.290	.833
	(B)	57	3.282	0.706		
	(C)	11	3.500	0.837		
	(D)	1	3.500	–		

(A) = junior high school or less; (B) = high school; (C) = college; (D) = post graduate;
Significance: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

As shown in Table 8, demographic significance was exhibited by the sample's income level in "family constraint (*F*-value = 3.853, $p = .005^{**}$)" toward participation of music leisure activity. From *post hoc* analysis, by LSD, seniors having monthly income in the "NT$40,000–50,000" range have significantly higher "family constraint" than seniors earning "less than NT$20,000" ($\Delta M = 0.826$, $p = .005^{**}$) toward participation of music leisure activity. At the same time, seniors earning "NT$40,000–50,000" also have significantly higher "family constraint" than seniors earning "NT$20,000–30,000" ($\Delta M = 0.775$, $p = .009^{**}$). Seniors earning "more than NT$50,000" have significantly higher "family constraint" than seniors earning "less than

NT$20,000" ($\Delta M$ = 0.909, p = .007**) toward participation of music leisure activity. At last, seniors earning "more than NT$50,000" have significantly higher "family constraint" than seniors earning "NT$20,000–30,000" ($\Delta M$ = 0.859, p = .011*) toward participation of music leisure activity.

Table 8. Income difference in participation of music leisure activity

Factors	Income	N	Mean	S.D.	F-value	p
Social interest	(A)	92	4.164	0.474	0.678	.608
	(B)	62	4.183	0.577		
	(C)	25	4.350	0.369		
	(D)	8	4.225	0.560		
	(E)	6	4.233	0.497		
Intrinsic interest	(A)	92	3.996	0.593	1.259	.288
	(B)	62	4.130	0.675		
	(C)	25	4.111	0.627		
	(D)	8	3.917	0.388		
	(E)	6	3.611	0.905		
Escape from boredom	(A)	92	3.562	0.730	1.633	.168
	(B)	62	3.627	0.913		
	(C)	25	3.604	0.921		
	(D)	8	2.813	1.132		
	(E)	6	3.583	1.330		
Family constraint	(A)	92	3.424	0.786	3.853	.005**
	(B)	62	3.475	0.746		
	(C)	25	3.639	0.884		
	(D)	8	4.250	0.904		
	(E)	6	4.333	0.422		
Cost constraint	(A)	92	3.278	0.769	1.139	.339
	(B)	62	3.254	0.822		
	(C)	25	3.375	0.784		
	(D)	8	3.688	0.753		
	(E)	6	2.833	0.408		

(A) = under NT$20K; (B) = NT$20K–30K; (C) = NT$30K–40K; (D) = NT$40K–50K; (E) more than NT$50K
Significance: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

As shown in Table 9, residence of the sample showed statistical significance to seniors' attitudes toward participation of music leisure activity, in "social interest (F-value = 5.161, p = .002**)", in "intrinsic interest (F-value = 9.864, p = .000***)", in "escape from boredom (F-value = 12.827, p = .000***)", and "cost constraint (F-value = 3.938, p = .009**)". From *post hoc* analysis, seniors living in Zhonghe have significantly lower "social interest" toward participation of music leisure activity, lower than those living in Banqiao by ΔM = 0.224 (p = .031*), lower than those living in Sanchong by ΔM = 0.309

(p = .003**), and lower than those living in Xinzhuang by ΔM = 0.384 (p = .000***). Conversely, seniors living in Zhonghe have significantly higher "intrinsic interest" toward participation of music activity, higher than those living in Banqiao by ΔM = 0.596 (p = .000***), higher than those living in Sanchong by ΔM = 0.521 (p = .000***), and higher than those living in Xinzhuang by ΔM = 0.252 (p = .040*),

Seniors living in Sanchong have significantly lower attitude of participation due to "escape from boredom", lower than those living in Banqiao by ΔM = 0.717 (p = .000***), lower than those living in Zhonghe by ΔM = 0.795 (p = .000***), and lower than those living in Xinzhuang by ΔM = 0.910 (p = .000***). Seniors living in Sanchong have significantly higher cost constraint than those living in Banqiao by ΔM = 0.331 (p = .031*), and higher cost constraint than those living in Xinzhuang by ΔM = 0.517 (p = .001**). The findings insinuate that seniors living in Sanchong have lower income, have higher constraint due to cost, and are less likely to engage in music leisure activities because of boredom escape.

Table 9. Residence difference in participation of music leisure activity

Factors	Residence	N	Mean	S.D.	F-value	p
Social interest	Banqiao	48	4.183	0.550	5.161	.002**
	Sanchong	50	4.269	0.415		
	Zhonghe	49	3.959	0.476		
	Xinzhuang	46	4.344	0.582		
Intrinsic interest	Banqiao	48	3.806	0.570	9.864	.000***
	Sanchong	50	3.880	0.562		
	Zhonghe	49	4.401	0.527		
	Xinzhuang	46	4.058	0.697		
Escape from boredom	Banqiao	48	3.677	0.835	12.827	.000***
	Sanchong	50	2.960	0.755		
	Zhonghe	49	3.755	0.842		
	Xinzhuang	46	3.870	0.785		
Family constraint	Banqiao	48	3.556	0.949	0.793	.499
	Sanchong	50	3.440	0.775		
	Zhonghe	49	3.483	0.758		
	Xinzhuang	46	3.681	0.770		
Cost constraint	Banqiao	48	3.229	0.736	3.938	.009**
	Sanchong	50	3.560	0.705		
	Zhonghe	49	3.337	0.904		
	Xinzhuang	46	3.044	0.640		

Significance: $^{*}p < .05$, $^{**}p < .01$, $^{***}p < .001$

Conclusion

The study has accomplished its goal of understanding seniors' attitudes toward participation of music leisure activities in Taiwan. In general, three main attributes of participation by the elderly were: social interest, intrinsic interest, and escape from boredom. At the same time, two barriers of participation were identified as family constraint and cost constraint. The findings suggested that seniors tend to engage in music leisure activities for socializing with their friends, especially by those living in Xinzhuang than their counterparts living in other districts of New Taipei City. Individual's intrinsic interest in music leisure activities suggested that poorly educated seniors tend to have higher intrinsic interest than their more educated counterparts. Seniors living in Zhonghe also tend to have higher intrinsic interest toward participation of music leisure activities than those living in other districts of New Taipei City. Escape from boredom is a very minor reason that seniors engage in music leisure activity, explained by only 9.412% of the total variance. Among demographic differences, elderly adults living in Sanchong exhibited the lowest attitude towards escape from boredom as the reason for participation of music leisure activity.

Female seniors have higher family constraint and higher cost constraint toward participation of music leisure activities than their male counterparts. Poorly educated seniors tend to have lower family constraint toward participation of music leisure activities than those who were more educated. Seniors receiving higher income tend to have higher family constraint toward participation of music leisure activities than those earning less. Seniors living in Sanchong have the higher cost constraint than those living in other districts of New Taipei City. Due to more metropolitan characteristic of Sanchong, seniors in this district may engage in music leisure activity because of intrinsic interest but not because of social interest, and they may also have much more options for other expenditure, thus more cost constraint for music leisure activities. The aforementioned findings should provide useful information for potential social service administration toward propagating more participation of music leisure activity by seniors which serve both physical and social-psychological benefits to the elderly.

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