



## **Health Beliefs of University Students With Regard To Sportive Recreational Activities: The Case of Batman and Gümüşhane Universities**

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### **Abstract**

The aim of this study is based on investigating the link between health beliefs and health decision-making using the application of Health Belief Scale on Sportive Recreational Activities. The data have been collected from 190 volunteer students which study Sports and Theology at University of Batman and Gumushane. The data have been examined using by Independent Samples t-test and One way Anova. Student perceptions regarding “Perceived Severity have been high. Regarding “Psychosocial Benefits” and “Self-Efficacy” sub-factors, there is a significant difference ( $p < 0,05$ ) between perception levels of theology students and perception levels of sports students.

**Keywords:** Health beliefs, sportive recreation, university students, tourism, marketing

## Introduction

Health is becoming more important to consumers now more than ever. Consumers are becoming increasingly active and informed when it comes to health. There is an increase in recreational activities that are dedicated to providing only healthy living, dairy, and activities. Nowadays, human needs the recreational activities to carry out the standart of living healthy. In particular, people living in big cities have greater need to recreational activities. Air pollution, traffic problems, destruction of natural areas, high population growth in urban areas causes necessitate the environment where people can benefit in several ways from social, cultural and physiological sights.

## Literature Review

Health Belief Model (HBM) as a conceptual formulation for understanding why individuals did or did not engage in a wide variety of health-related actions, and provided considerable support for the model (Janz & Becker, 1984 p. 1). The Health Belief Model (HBM) hypothesizes that health-related action depends upon the simultaneous occurrence of three classes of factors: (1) The existence of sufficient motivation (or health concern) to make health issues salient or relevant. (2) The belief that one is susceptible (vulnerable) to a serious health problem or to the sequelae of that illness or condition. This is often termed perceived threat. (3) The belief that following a particular health recommendation would be beneficial in reducing the perceived threat, and at a subjectively-acceptable cost. Cost refers to perceived barriers that must be overcome in order to follow the health recommendation; it includes, but is not restricted to, financial outlays (Rosenstock, Strecher & Becker, 1988, p. 177).

Individuals tend towards sport activities because of reasons such as leisure, strengthening-defending himself, protecting the health etc. (Tel, Öcalan and Yaman, 2000). However scholars have developed models and theories to predict and explain the health behaviors (Sutton, 2001). These are theory of planned behaviour, quality of life of individuals increases with the leisure services which is providing in the community. Recreation is a tool for a more full and meaningful life. These recreational services improve the life satisfaction. Individual development and progress, is a fact of leisure activities in struggle to live in of people (Benson, 1975; Hemingway, 1996).

Recreation is relaxing and entertaining activities that are voluntary in people or society's leisure time (Karaküçük, 1999). In terms of planning recreation is a set of physical facilities created for relieve tiredness of people in urban life (Çubuk, 1981). According to Glikson (1971), no matter how, recreation means the revival of human life. ( Hacıoglu et al., 2003) describe recreation as people's leisure time which is intentional entertainment as the recreational activities they participate as a volunteer motivation and satisfaction. Human, evaluating the remaining work time and free time outside of work environment with increased efficiency participated as volunteers able to renew itself with the behavior gained from these events.

Recreation is a tool for a more full and meaningful life (Erkan, 1995). The basic requirements in recreation are volunteer and non-profit. Sports constitute one of the areas that is the most comprehensive, various and attractive. Sports and recreation are mutually influence each other (Ramazanoğlu, Altungül & Özer, 2004). One of the most important referenced lesiure activities is sports activities. In the recreation activities that based on technics for recreational purposes which are basic physical exercises or several branch of sports recreation activities that make up a large part of recreational activities has been called Recreational Sports (Zorba & Bakır, 2004).

Recreation, chosen voluntarily by the attended for evaluating the leisure time which include the event (Serarslan & Bakır, 1988, p. 28). Musical preoccupations, sporting events, games, art activities, activities that require skill, nature activities, can be listed as a social and cultural events. Gender spesific researches on university students has been examined by the researchers (Baić, M., Andrijašević, M., and Sporiš, G., 2013). They also indicated that university students are in the last stages in which they can develop healthy behaviors. Understanding individual differences in environmentalism (recreational activities) has recognized the role of education which usually quantified as the level of formal schooling received by an individual in predicting recreational attitudes and behaviours (Arnocky & Stroink, 2011: 137). In attempting to understand this relationship we must first and foremost acknowledge that highly educated individuals tend to be of greater socioeconomic status, which is also strongly related to recreational concerns, attitudes, and initiatives.

## Methodology

The universe of the research comprise of Gumushane and Batman University prep, first and second grade graduate students. Students was chosen from theology and sport deparments. The reason is that to find out difficulties of theology background students and sports background students according to their beliefs on recreational activities. Because concept of belief has different perception and practice in theological system. The questionnaire has been implemented between February-May 2015. The sample was delivered 229 questionnaire form. 190 of them have been fully answered. There are 9 demographic questions and 21 field questions with 5 likert scale. The scale before was used Ertüzün's (2013) dissertation. There have been 5 subdimensions of 21 questions. These are "perceived severity" 4 questions; "perceived barriers" 3 questions; "physcial benefits" 4 questions; "psychosocial benefits" 6 questions and "self-efficacy" 4 questions. The results of the study may not be generalized for students at universities.

## Data Analysis

Firstly frequency and percentage distribution of university students' demographic attributes have been shown. Descriptive statistics (mean, standart deviation, minimum ve maksimum scores) concerning sub-factors which under the Health belief scale related to Sportiv

recreational activities have been examined. Student age, gender, recreational sport participation, recreational participation preferences and department of studies variables have been examined comparable with the sub-factor belief level differences using by the independent sample t-test. Student income level, lifetime period in their living place (city) and grade (first, second class ext.) variables have been examined compared with sub-factor belief level differences using by the one-way annova test.

## Results

**Table 1. Sosyo-Demographic Characteristics of Participants**

<b>Item</b>	<b>Category</b>	<b>f</b>	<b>%</b>
<b>Age</b>	16-20	83	43,7
	21 and above	107	56,3
<b>Gender</b>	Male	73	38,4
	Female	117	61,6
<b>Recreational Sport Participation</b>	Yes	151	79,5
	No	39	20,5
<b>Lifetime in the city</b>	1-2	110	57,9
	3-4	29	15,3
	5 and above	51	26,8
<b>Income</b>	0-500 TL	130	68,4
	501-1000 TL	33	17,4
	1001 TL and above	27	14,2
<b>Recreational Activity Preference</b>	Individual	62	32,6
	Group	128	67,4
<b>Accessing Health Information</b>	Social Circle	53	27,9
	Health Staff	41	21,6
	Television	34	17,9
	Internet	62	32,6
<b>Department</b>	Theology	126	66,3
	Sports	64	33,7
<b>Grade</b>	Prep	37	19,5
	1st Grade	84	44,2
	2nd Grade	69	36,3
<b>Total</b>		190	100,0

Total respondents are 190 and all of them have answered the questions. %61,6 of respondents are female. %66,3 of respondents' major study is theology. %44,2 of respondents are first grade students. %68,4 of respondents have maximum 500 Turkish lira monthly income. %57,9 of respondents have been living in the same places for 1-2 years. 128 (%79,5) of respondents have participated sportif recreation at least one time in their everyday life; %20,5 haven't. %67,4 of respondents prefer group participation. %32,6 of respondents acquire health knowledge via internet.

**First Sub-Problem:** What is the perception level of students regarding sub-factors of “recreational health belief scale” ?

**Table 2. Sub-Factor Descriptive Statistics of Student Perceptions**

	N	Minimum	Maximum	Mean ( $\bar{X}$ )	Std. Deviation
Perceived Severity	190	12,00	20,00	17,29	2,01
Perceived Barriers	190	5,00	15,00	10,56	2,25
Physcial Benefits	190	11,00	20,00	16,51	2,08
Psychosocial Benefits	190	12,00	30,00	22,24	4,04
Self-Efficacy	190	4,00	20,00	12,86	3,59

Investigating student perceptions regarding sub-factors, “Perceived Severity” sub-factor with  $\bar{X} = 17,29$  ( $S=2,01$ ) is close to maximum value (20,00) thus perception level of students are high. Perceived Barriers is  $\bar{X} = 10,56$  ( $S=2,25$ ) and between max. value 15 and min. value 5, thus perception levels are medium. Physcial Benefits is  $\bar{X} = 16,51$  ( $S=2,08$ ) is little close to maximum value thus perception levels are above the medium level. Psychosocial Benefits sub-factor is  $\bar{X} = 22,24$  ( $S=4,04$ ) and little closer to maximum value of 30,00 thus perception levels are little above of the middle level. Self-Efficacy sub-factor is  $\bar{X} = 12,86$  ( $S=3,59$ ) and little closer to max. value 20,00 thus perceptions levels are little above of the medium level.

**Second Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to student age?

**Table 3. Sub-factor differences of student perceptions according to age - Independent-Sample T-Test Results**

	Age	N	$\bar{X}$	S	t	sd	p
Perceived Severity	16-20	83	17,77	1,88	2,97	188	,003
	21 $\geq$	107	16,92	2,04			
Perceived Barriers	16-20	83	10,81	2,17	1,32	188	,189
	21 $\geq$	107	10,37	2,30			
Physcial Benefits	16-20	83	16,84	1,87	1,95	188	,052
	21 $\geq$	107	16,25	2,21			
Psychosocial Benefits	16-20	83	22,18	4,26	,17	188	,867
	21 $\geq$	107	22,28	3,88			
Self-Efficacy	16-20	83	12,93	3,49	,24	188	,814
	21 $\geq$	107	12,80	3,68			

Referring to the results in Table 3; according to the age of the students, regarding “Perceived Severity” sub-factor, it seems there is a significant difference ( $p < 0,05$ ) between perception levels of students whose age level “16-20” and perception levels of students whose age level “21 and above”. Regarding “Perceived Barriers”, “Physcial Benefits”, “Psychosocial

Benefits” and “Self-Efficacy” sub-factors, it seems there is no significant difference ( $p>0,05$ ) between perception levels of students whose age level “16-20” and perception levels of students whose age level “21 and above”.

**Third Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to student gender?

**Table 4. Sub-factor differences of student perceptions according to gender - Independent-Sample T-Test Results**

	Gender	N	$\bar{X}$	S	t	sd	p
Perceived Severity	Male	73	17,19	2,11	,53	188	,598
	Female	117	17,35	1,96			
Perceived Barriers	Male	73	10,52	2,24	,21	188	,837
	Female	117	10,59	2,26			
Physcial Benefits	Male	73	16,38	2,16	,66	188	,509
	Female	117	16,59	2,04			
Psychosocial Benefits	Male	73	23,00	3,94	2,08	188	,039
	Female	117	21,76	4,04			
Self-Efficacy	Male	73	13,78	3,53	2,85	188	,005
	Female	117	12,28	3,51			

When Table 4 examined, according to gender of the students, regarding “Perceived Severity”, “Perceived Barriers” and “Physcial Benefits” sub-factors, it seems there is no significant difference ( $p>0,05$ ) between perception levels of male students and perception levels of female students. Besides, regarding “Psychosocial Benefits” and “Self-Efficacy” sub-factors, it seems there is a significant difference ( $p<0,05$ ) between perception levels of male students and perception levels of female students.

**Fourth Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to student income?

**Table 5. Sub-factor differences of student perceptions according to income - One-Way Anova Results**

	Income	N	$\bar{X}$	S	F (2/187)	p	Post Hoc (Tukey)
Perceived Severity	0-500 TL	130	17,20	1,93	1,23	,294	
	501-1000 TL	33	17,18	2,05			
	1001 TL $\geq$	27	17,85	2,32			
Perceived Barriers	0-500 TL	130	10,58	2,28	,05	,955	
	501-1000 TL	33	10,61	2,12			
	1001 TL $\geq$	27	10,44	2,36			
Physcial Benefits	0-500 TL	130	16,43	2,07	3,34	,037	2<3
	501-1000 TL	33	16,09	2,14			
	1001 TL $\geq$	27	17,41	1,89			

Psychosocial Benefits	0-500 TL	130	21,93	4,05	4,43	,013	1<3, 2<3
	501-1000 TL	33	21,73	3,34			
	1001 TL ≥	27	24,33	4,25			
Self-Efficacy	0-500 TL	130	12,45	3,50	3,38	,036	1<3
	501-1000 TL	33	13,24	3,54			
	1001 TL ≥	27	14,33	3,74			

Categories: 0-500=1; 501-1000=2 and 1001 and above=3

Referring to Table 5; according to students income, regarding “Perceived Severity” and “Perceived Barriers” sub-factors, it seems there is no significant difference ( $p>0,05$ ) between perceptions of students according to students income. Regarding “Physcial Benefits”, “Psychosocial Benefits” and “Self-Efficacy” sub-factors, it seems there is a significant difference ( $p<0,05$ ) between perceptions of students according to students income.

**Fifth Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to students’ lifetime period in the city?

**Table 6. Sub-factor differences of student perceptions according to lifetime in the city – One-Way Anova Results**

	Lifetime	N	$\bar{X}$	S	F (2/187)	p	Post Hoc (Tukey)
Perceived Severity	1-2	110	17,45	1,97	1,63	,199	
	3-4	29	16,69	2,19			
	5 ≥	51	17,29	1,98			
Perceived Barriers	1-2	110	10,54	2,34	,31	,735	
	3-4	29	10,34	2,21			
	5 ≥	51	10,75	2,09			
Physcial Benefits	1-2	110	16,51	2,20	,88	,419	
	3-4	29	16,10	1,82			
	5 ≥	51	16,75	1,98			
Psychosocial Benefits	1-2	110	22,39	4,12	2,59	,078	
	3-4	29	20,72	3,54			
	5 ≥	51	22,76	3,99			
Self-Efficacy	1-2	110	12,74	3,57	3,93	,021	3>2
	3-4	29	11,59	3,04			
	5 ≥	51	13,84	3,71			

In Table 6; according to lifetime in the city of the students, regarding “Perceived Severity”, “Perceived Barriers”, “Physcial Benefits” and “Psychosocial Benefits” sub-factors, it seems there is no significant difference ( $p>0,05$ ) between perceptions of students according to students lifetime in the city. Besides, regarding “Self-Efficacy” sub-factor, it seems there is a significant difference ( $p<0,05$ ) between perceptions of students according to students lifetime in the city.

**Sixth Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to recreational sport participation?

**Table 7. Sub-factor differences of student perceptions according to recreational sport participation - Independent-Sample T-Test Results**

	Participation	N	$\bar{X}$	S	t	sd	p
Perceived Severity	Yes	151	17,26	2,03	,42	188	,675
	No	39	17,41	1,94			
Perceived Barriers	Yes	151	10,50	2,35	,80	188	,424
	No	39	10,82	1,79			
Physcial Benefits	Yes	151	16,53	2,07	,25	188	,803
	No	39	16,44	2,16			
Psychosocial Benefits	Yes	151	22,71	3,88	3,25	188	,001
	No	39	20,41	4,19			
Self-Efficacy	Yes	151	13,30	3,60	3,48	188	,001
	No	39	11,13	2,98			

Referring to Table 7; according to recreational sport participation of the students, regarding “Perceived Severity”, “Perceived Barriers” and “Physcial Benefits” sub-factors, it seems there is no significant difference ( $p>0,05$ ) between perception levels of students participating in activities and perception levels of students non-participating in activities. Regarding “Psychosocial Benefits” and “Self-Efficacy” sub-factors, it seems there is a significant difference ( $p<0,05$ ) between perception levels of students participating in activities and perception levels of students non-participating in activities.

**Seventh Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to recreational participation preference?

**Table 8. Sub-factor differences of student perceptions according to recreational preference - Independent-Sample T-Test Results**

	Recreational Preference	N	$\bar{X}$	S	t	sd	p
Perceived Severity	Individual	62	17,03	1,97	1,23	188	,221
	Group	128	17,41	2,03			
Perceived Barriers	Individual	62	10,60	2,14	,14	188	,886
	Group	128	10,55	2,31			
Physcial Benefits	Individual	62	16,45	2,06	,27	188	,787
	Group	128	16,54	2,10			
Psychosocial Benefits	Individual	62	22,15	4,16	,22	188	,828
	Group	128	22,28	4,00			
Self-Efficacy	Individual	62	12,19	3,67	1,79	188	,076
	Group	128	13,18	3,52			

When Table 8 examined, according to recreational preference of the students, regarding “Perceived Severity”, “Perceived Barriers” and “Physcial Benefits” “Psychosocial Benefits” and “Self-Efficacy” sub-factors, it seems there is no significant difference ( $p>0,05$ ) between

perception levels of students participating in activities individually and perception levels of students participating in activities as a group.

**Eighth Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to students department of study?

**Table 9. Sub-factor differences of student perceptions according to department – Independent-Sample T-Test Results**

	Department	N	$\bar{X}$	S	t	sd	p
Perceived Severity	Theology	126	17,28	2,03	,11	188	,911
	Sports	64	17,31	1,98			
Perceived Barriers	Theology	126	10,43	2,33	1,16	188	,248
	Sports	64	10,83	2,07			
Physcial Benefits	Theology	126	16,54	2,09	,27	188	,788
	Sports	64	16,45	2,09			
Psychosocial Benefits	Theology	126	21,58	4,10	3,23	188	,001
	Sports	64	23,53	3,61			
Self-Efficacy	Theology	126	11,75	3,40	6,59	188	,000
	Sports	64	15,03	2,91			

Referring to Table 9; according to department of the students, regarding “Perceived Severity”, “Perceived Barriers” and “Physcial Benefits” sub-factors, it seems there is no significant difference ( $p>0,05$ ) between perception levels of theology students and perception levels of sports students. Regarding “Psychosocial Benefits” and “Self-Efficacy” sub-factors, it seems there is a significant difference ( $p<0,05$ ) between perception levels of theology students and perception levels of sports students.

**Ninth Sub-Problem:** Are there significant differences between recreational health belief scale sub-factor perceptions according to students grade?

**Table 10. Sub-factor differences of student perceptions according to grade - One-Way Anova Results**

	Grade	N	$\bar{X}$	S	F (2/187)	p	Post Hoc (Tukey)
Perceived Severity	Prep	37	17,78	1,90	2,57	,079	
	1.Grade	84	17,39	1,92			
	2.Grade	69	16,90	2,13			
Perceived Barriers	Prep	37	10,59	2,44	,01	,994	
	1.Grade	84	10,55	2,40			
	2.Grade	69	10,57	1,97			
Physcial Benefits	Prep	37	17,49	2,02	5,34	,006	1>2, 1>3
	1.Grade	84	16,33	2,00			

	2.Grade	69	16,20	2,09		
	Prep	37	22,51	4,82		
Psychosocial Benefits	1.Grade	84	22,68	3,70	1,59	,206
	2.Grade	69	21,55	3,95		
	Prep	37	12,49	3,62		
Self-Efficacy	1.Grade	84	13,11	3,83	,43	,653
	2.Grade	69	12,75	3,28		

Referring to Table 10; according to students' grade, regarding "Perceived Severity", "Perceived Barriers", "Psychosocial Benefits" and "Self-Efficacy" sub-factors, it seems there is no significant difference ( $p > 0,05$ ) between perception of students according to their grade. Regarding "Physical Benefits" sub-factor, it seems there is a significant difference ( $p < 0,05$ ) between perception of students according to their grade.

### Conclusion and implications

The aim of this study was to investigate the link between health beliefs and health decision-making using the application of Health Belief Scale on Sportive Recreational Activities. Many researchers investigated Health Beliefs and attitudes toward recreational activities.

Student perceptions regarding "Perceived Severity" sub-factor, it seems student perceptions are high. Perceived severity explains seriousness of a health issue. Perception of seriousness is often based on medical information or knowledge it may also come from beliefs a person has about the difficulties a health problem would create or the effects it would have on person's life in general (McCormick Brown, 1999).

According to the age of the students, regarding "Perceived Severity" sub-factor, it seems there is a significant difference ( $p < 0,05$ ) between perception levels of students whose age level "16-20" and perception levels of students whose age level "21 and above".

Regarding "Psychosocial Benefits" and "Self-Efficacy" sub-factors, it seems there is a significant difference ( $p < 0,05$ ) between perception levels of male students and perception levels of female students. Self-efficacy explains personal belief on one's own ability to enact the desired behavior. It may be applied by using role-playing, modeling, incremental goal setting strategies to build an individual's believe about his/her ability to adopt healthy behavior (Orji, R., Vasilleva, J., & Mandryk, R., 2012)

Regarding "Physical Benefits", "Psychosocial Benefits" and "Self-Efficacy" sub-factors, it seems there is a significant difference ( $p < 0,05$ ) between perceptions of students according to students income. Increasing physical activity in low income groups is an important public health challenge. Regarding "Self-Efficacy" sub-factor, it seems there is a significant difference ( $p < 0,05$ ) between perceptions of students according to students lifetime in the city.

Regarding "Psychosocial Benefits" and "Self-Efficacy" sub-factors, it seems there is a significant difference ( $p < 0,05$ ) between perception levels of students participating in activities and perception levels of students non-participating in activities. According to recreational preference of the students there is no significant differences between sub-factors and student

perceptions. Regarding “Psychosocial Benefits” and “Self-Efficacy” sub-factors, it seems there is a significant difference ( $p<0,05$ ) between perception levels of theology students and perception levels of sports students. Regarding “Physical Benefits” sub-factor, it seems there is a significant difference ( $p<0,05$ ) between perception of students according to their grade.

The findings of the study will provide a viewpoint on recreation and health. Also practitioners can also benefit from the study to design their recreational facilities in tourism industry for young people and their religious beliefs. This research has not covered AIO (attitude, interest, opinion) broadly due to time and access limitations. Future researches may be focused on these variables. Also religious sense of people may be compared to sports and recreational activities in future researches.

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