

EFFECTS OF ALPINE SKI COURSE PROGRAM ON ATTITUDES TOWARDS ALPINE SKIING

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Abstract:

The purpose of the study was to examine potential differences between male and female alpine ski naive young people in attitudes towards alpine skiing before and after the completion of structured alpine ski school program. We included 136 ski beginners (41 women and 95 men) who anonymously filled out a previously validated 26-item Lickert scale-type questionnaire related to their attitudes towards skiing just before and at the end of the skiing course. Alpine ski course program positively affected attitude change in favor of alpine skiing for the overall group of participants ($p=.00$) as well as when the scores were analyzed separately for the male ($p=.00$) and female ski beginners ($p=.01$). Although male participants had initially a more positive attitude towards skiing than their female counterparts ($p=.03$), upon completion of the alpine ski course program both the women and men changed their attitude in a positive direction and the statistical significance between genders was lost. The findings confirm that the structured program of alpine ski course can improve attitude towards alpine skiing. Moreover, when ski instructors are familiar with the attitudes and expectations of their ski beginners in advance, they can adjust instruction program to increase interest in alpine skiing.

Key words: *ski beginners, questionnaire, physical activity, learning process*

Introduction

Physical activity is closely related to the promotion of healthy lifestyle, so it is vital to find ways for activity learning that would provide improvement of quality of life and prevention of diseases, on the one hand, and safe and injury-free learning of a new activity on the other hand (Trudeau & Shephard, 2005). Physical activity preferences are defined by different factors, among which the activity curriculum contents, teacher/instructor's behavior, the facilities in which the activity is conducted and work climate play an important role in activity selection and in persistence in it (Agbuga, Xiang, & McBride, 2013). Research has indicated a dramatic drop in fitness levels over the years, especially among women (Luke & Sinclair, 1991). Therefore, different gender-related and psychological characteristics, such as fear, self-efficacy or worry, which all potentially have a detrimental effect on behavioral component of sport preferences, are investigated in order to be recognized in advance and possibly overcome by a structured sport teaching program (Cartoni, Minganti, & Zelli, 2005; Khong Chiu, & Kayat, 2010). Skiing is a physically demanding sport

undertaken in winter conditions and mountainous environment. Whilst this is a part of its beauty and of the experience of being in the mountains, it may also present a main obstacle for choosing alpine skiing as a recreational activity (Hébert-Losier & Holmberg, 2013). Moreover, due to its very nature, skiing may always entail a degree of risk of injury, so this, together with ski environment, can be of crucial importance for attitude formation towards alpine skiing (Paquette, Dumais, Bergeron, & Lacourse, 2014). Alpine ski beginners are mostly not adequately informed about the proper ski equipment or the most efficient ways of alpine ski learning. Based on the information they have gained in sport shops, ski equipment services, through media, from family, friends or acquaintances, alpine ski beginners form their attitudes towards skiing and, sometimes, due to fear of injury, are discouraged before even starting this activity (Nagel & Reuleaux, 1985). Inclusion in the basic alpine ski school presents the best option for injury prevention while the alpine ski naïve persons are adopting skills in controlled conditions and with trained instructors (Cigrovski, Prlenda, & Radman, 2014). Moreover, alpine ski course program, as a way of structured

learning, might positively influence attitude towards skiing and lead to further popularization of sport and physical activity. On the other hand, an insight into the ski beginners' initial attitude towards skiing, their fears and concerns, as well as opportunity to identify factors associated with either the adoption or avoidance of skiing, could provide useful information for ski instructors who wish to improve/adjust the program of ski school to attract and retain new skiers. We therefore hypothesized that the alpine ski course program, as a structured way of alpine ski teaching, affects the attitude towards alpine skiing in the alpine ski naïve young population. Three main questions were addressed in this study: Did female/male participants differ in their attitude towards alpine skiing? Did alpine ski school program contribute to any change of attitude towards alpine skiing in both female and male participants? Was the presumed attitude change, induced by the participation in the alpine ski school, positively directed?

Methods

Subjects

The investigation included 136 young adult participants (41 women and 95 men; aged 21.7 ± 1.31 years), naïve in alpine skiing.

Procedures

Participants filled out previously validated 26-item Lickert-type-scale questionnaire related to attitude towards alpine skiing (test reliability: Cronbach $\alpha = .92$, and homogeneity: $r = .33$) (Cigrovski, Božić, Prlenda, Matković, & Vlašić, 2012). The subjects were tested twice during the course of the study (before the ski course for beginners and after completing it). The questionnaire is presented in Table 1. The participants were asked to choose one statement on each tested item which most accurately described their feelings. The overall result was calculated as a simple sum of results in claims (after the negative particles, where a higher score suggested a more positive attitude, had been inversely scaled).

Data collection was anonymous. In order to ensure comparability of the results of the initial and final testing each participant was assigned a unique identification number (ID). Following the initial data collection, the ski beginners participated in a 7-day basic ski school program conducted by certified alpine ski instructors. After the ski learning program had ended, the participants were once again asked to fill out the same questionnaire within next three months.

Statistical analysis

Statistical package SPSS for Windows 17.0 was used for data processing. Analysis of variance (ANOVA) was used to determine probable differences between the initial and final testing on attitude towards alpine skiing as well as gender differences between the initial and final attitude test. The level of statistical significance was set at $p \leq .05$.

Table 1. Twenty-six-item scale for the evaluation of attitude towards alpine skiing

N	Claims
1	I don't like skiing because I fear of heights.
2	I don't like skiing because during winter time I prefer being in a confined space.
3	I like thrill, so I like skiing.
4	Just by watching skiing competitions I wished to be engaged in alpine skiing.
5	I would like to go regularly to alpine skiing/winter vacation with my family.
6	I don't want to learn alpine skiing out of fear of being worse than my colleagues.
7	I would like to become a ski instructor.
8	I would like my kids to be good alpine skiers.
9	I don't like skiing because I fear of avalanches.
10	I don't like skiing because I fear of injuries that would unable participation in my sport.sport.
11	I love the joys of winter so I like skiing
12	I like skiing because it makes the adrenalin rise.
13	I don't like skiing because it takes place in unstable winter conditions.
14	I don't like skiing because of the discomfort caused by the cold.
15	I don't like skiing, because I can't stand staying at high altitude.
16	I don't like skiing because of the feeling of uncertainty when using the ski lifts.
17	I don't like skiing because of fear of fall on ski slopes.
18	I don't like skiing because I fear of solar radiation.
19	Skiing is a fun activity.
20	Fear of the ice surface distances me from skiing.
21	I don't like skiing because I fear of a collision with other skiers.
22	If I didn't have to go to skiing during my university education I would never go skiing.
23	Exposure to wind on the ski slopes makes me not like skiing.
24	Improvement of ski techniques is more important to me than "partying" at skiing.
25	I don't like skiing because of fear of injuries.
26	It scares me that I will be hurt in a fall with skis or poles.

Results

Basic descriptive parameters and the results of ANOVA between the initial and final test on attitude towards alpine skiing of the tested sample and its subgroups are presented in Table 2.

Participation in alpine ski course changed attitude towards skiing in all ski naïve participants ($p=.00$; Table 2), as well as in men ($p=.00$) and women ($p=.01$) separately, as can be seen in Table 2. The results of descriptive statistics (given in Table 2) indicate an initial more positive attitude towards alpine skiing in male participants.

beliefs and, conversely, an unfavorable attitude if their beliefs are negative (Silverman & Subramaniam, 1999). The need to examine persons' attitudes towards sport is especially important when working with young people, who recently demonstrate a dramatic drop in fitness levels (Finkelstein, Trogon, Cohen, & Dietz, 2009). According to relevant literature in the field, the improved interest in physical activity can be achieved through the recognition of important determinants of attitude towards specific sport, through structured sport programs and even more through adjusting the activity cur-

Table 2. Results of descriptive statistics and the differences between the initial and final testing on attitudes towards alpine skiing

Group	N	Sum		Mean		SD		ANOVA	
		IN	FIN	IN	FIN	IN	FIN	F	p
All participants	136	14258	15289	104.8	112.4	14.4	14.4	18.7	0.00
Male	95	10131	10802	106.6	113.7	14.6	13.7	11.8	0.00
Female	41	4127	4487	100.7	109.4	13.5	15.7	7.4	0.01

IN = initial testing; FIN = final testing; SD = standard deviation

Table 3. Gender differences between the initial and final attitude test towards alpine skiing

Attitude	Male	Female	ANOVA	
	(Mean±SD)	(Mean±SD)	F	p
Initial test	106.6±14.6	100.7±13.5	5.05	0.03
Final test	113.7±13.7	109.4±15.7	2.53	0.11

Initially, the ski naïve male participants had a more positive attitude towards alpine skiing than their female counterparts ($p=.03$; Table 3). Upon the completion of the alpine ski learning program, the overall subject sample expressed a more positive attitude towards alpine skiing, but statistically significant gender difference in attitude towards skiing disappeared ($p=.11$; Table 3).

Discussion and conclusions

Several studies have investigated the attitudes towards physical activity, and suggested the potential determinants of such attitudes (Luke & Sinclair, 1991; Christodoulos, Douda, Polykratis, & Tokmakidis, 2006; Rikard & Banville, 2006). Moreover, gender-related differences in attitude towards physical activity were acknowledged (Luke & Sinclair, 1991; Milligan, et al., 1997; Krouscas, 1999; Kumar Tyagi & Kumar, 2013). As previously stated, attitudes shape our behaviors in numerous ways and determine our involvement in activities, the goals that we set and those we decide to abandon, i.e. they emerge from beliefs and yield intentions and actions. Generally, people with positive beliefs will have a favorable attitude towards the object of the

riculum to participants' interests and needs (Kriemler, et al., 2010). Although interest in alpine skiing is expanding, there is still space to attract new skiers through understanding their attitude, interests and motives for the involvement in physical activity (Theodorakis & Goudas, 1997; Strand & Scantling, 1994). To the best of our knowledge no study has focused specifically on the potential determinants of the attitudes of men and women towards alpine skiing as a leisure time activity, or on the effects of the structured alpine ski learning program on attitude change towards skiing. Therefore, we used a validated short questionnaire in order to collect information on attitude towards alpine skiing (Cigrovski, et al. 2012). As in other reports, we found a more positive initial attitude towards alpine skiing among male participants (Lindstrom, Hanson, & Ostergren, 2001). This gender-related attitude difference is similar to literature data, where women are generally less physically active and less enthusiastic about sport activities (Kumar Tyagi & Kumar, 2013). In the current study both the female and male participants changed their attitude towards skiing in a positive direction after the completion of alpine ski school and the initial significant differences in attitudes between the men and women eventually disappeared ($p=.03$ and $p=.11$, respectively; Table 3). In line with the data published by Kinchin and O'Sullivan (2003) and Penny and Jess (2004), structured programs of physical activity, such as alpine ski course, which take into account participants' wishes and expectations, facilitate engagement in healthy life-style activities. Questionnaires are an easily accessible and practical tool in attitude investigation, and the information gained through such

a way is an important armamentarium for coaches and instructors involved in physical activity teaching. As stated in previous investigations, identification of factors associated with one's choice to either elect or avoid physical activity could provide useful information to teachers who wish to enhance the appeal of their curricular contents and instructional practices (Luke & Sinclair, 1991). In line with the aforementioned, alpine ski instructors can overcome obstacles and fears alpine ski beginners possibly have by practicing student-centered in pedagogy every day alpine ski school (Kinchin & O'Sullivan, 2003). Our results confirm the hypothesis that alpine ski school, as a predefined program, can help in attitude formation. Moreover, when alpine ski instructors know attitudes, fears and expectations of alpine ski beginners in advance, they can adjust

program of alpine ski course accordingly and thus further increase interest in alpine skiing (Khong Chiu & Kayat, 2010). Short questionnaires, such as one used in our study, are easily accessible practical instruments for attitude investigation. Alpine ski instructors play a powerful role in influencing ski beginners both positively and negatively. Instructor's accountability for teaching, as well as for motivation and positive attitude development, impact ski beginners' activity choices based on their attitudes (Luke & Sinclair, 1991). Alpine ski instructors' impact on the ski beginners' activity choices is an important research area to explore it further. Findings from the studies examining attitudes and beliefs towards alpine skiing must be considered a component of the promotion of healthy lifestyles among young people.

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UČINCI PROGRAMA POČETNIČKOG TEČAJA ALPSKOG SKIJANJA NA STAVOVE PREMA ALPSKOM SKIJANJU

Cilj ovog istraživanja bio je utvrditi razliku u stavu prema alpskome skijanju između muškaraca i žena neposredno prije (inicijalno testiranje) i nakon završenog tečaja skijanja (završno testiranje). U istraživanju je sudjelovalo 136 ispitanika (41 žena i 95 muškaraca), koji prije samog istraživanja nikada nisu učili alpsko skijanje niti su skijali. Za potrebe istraživanja konstruiran je anketni upitnik od 26 pitanja, s dobrim metrijskim karakteristikama. Ispitanici su dva puta ispunjavali anketni upitnik, ocjenjujući svaku od 26 tvrdnji ocjenom od 1 do 5. Analiza rezultata pokazala je kako program škole alpskoga skijanja pozitivno utječe na promjenu stava o alpskom skijanju i muškaraca ($p=0,00$) i žena ($p=0,00$). Usporedba rezultata inicijalnog testiranja otkrila je pozitivniji stav prema alpskome skijanju kod ispitanika muškog spola ($p=0,03$), no

nakon završenog programa škole skijanja ispitanici oba spola promijenili su svoj stav u pozitivnom smjeru. Na temelju rezultata završnog testiranja moguće je zaključiti kako više ne postoji statistički značajna razlika u stavu između muškaraca i žena, koja je bila utvrđena inicijalnim testiranjem. Korektno proveden program škole alpskoga skijanja može značajno promijeniti stav skijaških početnika prema ovom zimskom sportu. Protokol ovog istraživanja može pomoći učiteljima skijanja u njihovu radu jer će, nakon što steknu uvid u inicijalno stanje stava svojih učenika, moći prilagoditi način poučavanja kako bi učenici bili motivirani, a sam proces usvajanja znanja učinkovitiji.

Ključne riječi: skijaški početnik, anketni upitnik, tjelesna aktivnost, proces učenja