

Characterization and Comparison of the Participant's Perception about the Quality of the Fitness Group Exercise Instructor, Considering the Practiced Activity

Francisco Campos¹, Vera Simões², Susana Franco³

¹Polytechnic Institute of Coimbra, Coimbra Education School, Coimbra / Portugal,

^{2,3}Polytechnic Institute of Santarém, Sport Sciences School of Rio Maior, Rio Maior / Portugal,

Correspondence:

F. Campos, Polytechnic Institute of Coimbra, Coimbra Education School, Coimbra / Portugal, E-mail: francicampos@esec.pt

Abstract

The studies developed by Franco et al. (2004) and Alves et al. (2013) indicate that the practiced activity could influence the perceived quality of the group exercise fitness participants. By that, the aim of this study is to characterize and compare the participant's perception about the quality categories and dimensions of the fitness group exercise instructor, defined by Campos (2015), considering the practiced activity (Aerobics, Aquarobics, Hip Hop, Resistance Training, Step). The questionnaire QIF-AG were applied to 745 fitness participants (35,41±13,41 years old). Was analyzed the mean values in general e and per activity, for characterization, and the results of the one-way ANOVA test (and the Tukey HSD post hoc test) for

comparison. The categories with highest mean values are ethics ($M=6,45$), cordiality ($M=6,45$), sympathy ($M=6,44$) (Relational Quality dimension), assiduity ($M=6,51$), dedication ($M=6,47$) and technical execution ($M=6,46$) (Technical-pedagogical Quality dimension). The results shows that are significant differences in the Relational Quality dimension ($p=0,029$) and in the categories: communication ($p=0,000$), availability ($p=0,016$), gaiety ($p=0,010$), honesty ($p=0,001$), sympathy ($p=0,030$), from Relational Quality; suitability ($p=0,035$), technical training ($p=0,003$), planning ($p=0,017$), punctuality ($p=0,001$), innovation ($p=0,011$) and assiduity ($p=0,021$), from Technical-pedagogical Quality. It is important for all the intervenient in the fitness area (owners, general managers, technical managers, trainers and instructors) the analysis of the obtained results, understanding the participant's perceived quality, allowing the instructor to adapt its intervention, trying to satisfy the participants, keeping them with high motivation levels and loyalty intention.

Keywords: Fitness; Instructor; Practiced Activity; Quality.

Introduction

Quality, satisfaction and loyalty are related concepts in general and in the fitness area (Fernández, Carrión, & Ruiz, 2012; Murray & Howat, 2002; Nuviala, Pérez-Ordas, Osuna, Grao-Cruces, Nuviala & Jurado, 2012; Papadimitriou & Karteroliotis, 2000). Don't like the fitness instructor (Franco, Pereira, & Simões, 2008) is one of the reasons, among others, to exercise dropout. The group exercise fitness instructors should and must be considered for the service improving, by the influence they have in the perceived quality and participant's satisfaction (Fernández et al, 2012; Murray & Howat, 2002; Nuviala et al., 2012). To solve the problems associated with poor quality the gyms must develop strategies to increase customer satisfaction and loyalty. Hiring qualified fitness instructors (Franco et al., 2008; Franco, Rodrigues, & Balcells 2008), that in general have the ability to motivate the participants (Hoffman & Jones, 2002), could be one of that strategies.

The quality of the group exercise fitness instructor can be assessed by 2 (two) dimensions and 25 (twenty five) categories [gaiety, cordiality, availability, empathy, ethics, image, communication, humility, motivation, honesty, and sympathy (Relational Quality); suitability, assiduity, fitness level, knowledge, dedication, energetic, musical skills, technical execution, experience, technical training, innovation, instruction, planning, and punctuality (Technical-pedagogical Quality)], by the questionnaire "Quality of the Fitness Instructor - Group Exercise" (QIF-AG) (Campos, 2015).

Franco, Cordeiro and Cabeceiras (2004) made a study about the preferences of the group exercise fitness participants, considering an ideal of fitness instructor. They concluded that are significant differences according to the practiced activity. In another study, which analyzes the behavior of the group exercise fitness instructor (kinesics communication) according to the practiced activity, the results also show that are significant differences in some of the categories (Alves, Rodrigues, Balcells, Foguet, Richheimer, Carvalhinho, Simões, & Franco, 2013). These results (Alves et al., 2013), as the obtained in the study of Franco et al. (2004), indicate

that the perceived quality of the fitness participants could be statistical different considering their practiced activity.

By that, the aim of this study is to characterize and compare the participant's perception about the quality categories and the dimensions of the fitness group exercise instructor [defined by Campos (2015)], considering the practiced activity (Aerobics, Aquarobics, Hip Hop, Resistance Training, Step). The characterization is performed in general (total participants regardless of the practiced activity) and then in particular (by the practiced activity). What are the quality indicators with the highest values? In another perspective, what are the quality indicators with the lowest values? Are there significant differences, for example, between the Hip Hop and Aquarobics participants? These questions, among others, support the underlying problem of the study, and the answers will allow to the group exercise fitness instructor, either in general or particular, the adaptation of his intervention, in accordance with the activity in which it operates, always in order to increase the perceived quality, the satisfaction and the loyalty of the fitness participants.

Methods

Participants

The questionnaire QIF-AG (Campos, 2015) was applied to 754 participants of different practiced activities (Aerobics, Aquarobics, Hip Hop, Resistance Training, Step) (table 1).

Table 1. Participant's characterization

	<i>n</i>	<i>Age (M±SD)</i>
Aerobics	224	28,33±12,32
Aquarobics	164	50,91±16,76
Hip Hop	76	33,01±10,64
Resistance Training	129	34,19±15,33
Step	161	29,62±11,99
	754	35,41 ±13,41

Instrument

To know the meaning of a particular construct (quality of the group exercise fitness instructor), in a scientific perspective, there are 3 ways to collect data that can be used as an information source in a qualitative research: observation, documentary analysis or survey [oral (interview) or writing (questionnaire)] (Tuckman, 2005). In this study is used the writing survey as information source, more specifically the QIF-AG developed by Campos (2015).

This questionnaire measures the quality of the group exercise fitness instructor, according to the participant's perception. The questions are answered through a scale of agreement (7 points) from 1 (*strongly disagree*) to 7 (*strongly agree*). In the table 2 are presented the items, the respective categories and dimensions of the QIF-AG.

Table 2. Items, categories and dimensions of the questionnaire QIF-AG

Item	Category	Dimension
1. Speaks clearly.	Communication	Relational Quality
2. Shows availability to listen any problems that may arise.	Availability	
7. It is a funny person.	Gaiety	
8. Shows to be an honest person.	Honesty	
9. Shows capacity to accept criticism.	Humility	
10. It is a sympathetic person.	Sympathy	
12. Have a "healthy" relation with the participants.	Ethics	
14. Shows to be careful with his image.	Image	
16. It is a person with "good manners".	Cordiality	
20. Encourage the participants during the practice.	Motivation	
23. Have a "proximity" relation with the participants.	Empathy	

Item	Category Dimension	Technical-pedagogical Quality
3. When something unexpected happens, has the ability to tailor the session.	Suitability	
4. It is aware of the participant's performance when doing an exercise.	Instruction	
5. Shows to have specific trainer in fitness area.	Technical Training	
6. Shows to have a well planned session.	Planning	
11. Shows to have a good fitness performance.	Fitness Level	
13. Shows already working in the fitness area for some time.	Experience	
15. Come to class on time.	Punctuality	
17. Shows to have general knowledge in sports area.	Knowledge	
18. Follows the musical rhythm.	Musical Skills	
19. It is original in the presented sessions.	Innovation	
21. Shows dedication in everything he does.	Dedication	
22. Don't miss the scheduled sessions.	Assiduity	
24. Performs well the exercises, in a technical way.	Technical Execution	
25. It is energetic in his intervention.	Energetic	

All the organizations where data was collected were contacted through a cooperation request and, after their authorization, all the instructors and participants were contacted. They were informed about the subject and research object, the importance of their cooperation, what is intended to do (questionnaire application), the deadlines, and the anonymity in the use and dissemination of the collected information (Almeida & Freire, 2003).

Analysis of Data

In the first analysis is intended to characterize the participant's perception (regardless of practiced activity) per category and dimension. With the presentation of the most and less valorized quality indicators, the fitness instructors could understand which ones need improvement. In the second analysis is intended to characterize and compare the participant's perception, according to the practiced activity, confirming if there are statistically significant differences in each one of the 25 categories and the 2 dimensions of the questionnaire QIF-AG.

In the first analysis are presented the minimum, maximum, mean, standard deviation, skewness and kurtosis values. In the second, beyond the mean and standard deviation for characterization purpose, are presented the results of the one-way ANOVA test application. This is a parametric test used for comparison of the means of two or more groups from independent random samples (Maroco, 2010; Pestana & Gageiro, 2008). If there are significant differences between the studied groups is important to know their provenance. For that, is recommended the application of the Tukey HSD post hoc test (Maroco, 2007) because, in larger samples, is more robust to deviations of variance normality and homogeneity. For samples larger than 30, by the central limit theorem, is assumed the normality existence (Laureano, 2011; Maroco & Bishop, 2003; Pedrosa & Gama, 2004). Statistical analysis was performed using the SPSS software, for a 5% significance level.

Results and Discussion

The results and discussion presentation started with the minimums, maximums, means, standard deviations, skewness and kurtosis values for each one of the items (table 3), considering all the participants ($n=754$). It is possible to verify which quality indicators could be improved, based on the mean value, increasing with that the participants satisfaction and loyalty intention.

Table 3. Minimum, maximum, mean, standard deviation, skewness and kurtosis values by item

Item	Category	Dimension	Minimum	Maximum	Mean	Standard Deviation	Skewness	Kurtosis
1	Communication	Relational Quality	2	7	6,35	0,82	-1,281	1,692
2	Availability		2	7	6,33	0,87	-1,319	1,566
7	Gaiety		2	7	6,37	0,89	-1,546	2,386
8	Honesty		2	7	6,29	0,93	-1,305	1,305
9	Humility		1	7	6,11	1,03	-1,118	0,937
10	Sympathy		1	7	6,44	0,86	-1,722	3,244
12	Ethics		3	7	6,45	0,78	-1,395	1,669
14	Image		1	7	6,31	0,89	-1,553	3,672
16	Cordiality		3	7	6,45	0,77	-1,307	1,176
20	Motivation		2	7	6,43	0,79	-1,548	3,038
23	Empathy		1	7	6,25	0,95	-1,389	2,114
3	Suitability		Technical-pedagogical Quality	2	7	6,30	0,82	-1,173
4	Instruction	2		7	6,29	0,84	-1,224	1,933
5	Technical Training	3		7	6,44	0,75	-1,244	1,018
6	Planning	1		7	6,38	0,81	-1,489	3,323
11	Fitness Level	2		7	6,45	0,78	-1,455	2,211
13	Experience	2		7	6,25	0,91	-1,111	0,776
15	Punctuality	1		7	6,40	0,81	-1,511	3,208
17	Knowledge	2		7	6,38	0,85	-1,415	1,986
18	Musical Skills	1		7	6,39	0,89	-1,647	2,971
19	Innovation	3		7	6,28	0,84	-1,019	0,401
21	Dedication	2		7	6,47	0,74	-1,402	2,074
22	Assiduity	2		7	6,51	0,82	-2,184	6,313
24	Technical Execution	2		7	6,46	0,79	-1,576	2,635
25	Energetic	2	7	6,38	0,84	-1,497	2,411	

In the Relational Quality, the categories with highest mean values are: ethics ($M=6,45$), cordiality ($M=6,45$) and sympathy ($M=6,44$). Comparing the results with the literature, these indica-

tors are shown as associated to the quality fitness instructor in Karteroliotis and Papadimitriou (2000) (ethics and cordiality) and Batista, Graça, and Matos (2008) (sympathy). In the other side, in the Technical-pedagogical Quality, the categories with highest mean values are: assiduity ($M=6,51$), dedication ($M=6,47$) and technical execution ($M=6,46$). These indicators are shown as associated with to the quality fitness instructor in Batista et al. (2008) (assiduity and dedication) and Cloes, Laraki, Zatta, and Piéron (2001) (technical execution).

Regardless of the high obtained values for all items, with mean values above 6 (on a scale of 1 to 7), is possible to verify which are the indicators that could be improved, for presenting less mean values when compared to the others. In the Relational Quality the items with lower mean values are: humility ($M=6,11$), empathy ($M=6,25$) and honesty ($M=6,29$). In the Technical-pedagogical Quality the items with lower obtained values are: experience ($M=6,25$), innovation ($M=6,28$) and instruction ($M=6,29$). Of these, innovation is referred in the literature by González, Erquicia, and González (2005) and instruction by Wininger (2002). The humility, empathy, honesty (Relational Quality) and experience (Technical-pedagogical Quality) were not referred in the literature.

In table 4 are presented the mean and standard deviation answer values in each of the items and dimensions, considering the different practiced activity. Also is presented the mean and standard deviation answer values for each one of the different activities. Through the table 4 is possible to understand the specificity of each one of the different practiced activity.

Table 4. Mean (M) and standard deviation (SD) by category and dimension

Item	Category	Dimension	Aerobics		Aquarobics		Hip Hop		Resistance Training		Step	
			M	SD	M	SD	M	SD	M	SD	M	SD
1	Communication	Relational Quality	6,47	0,68	6,38	0,81	5,97	1,03	6,28	0,85	6,40	0,74
2	Availability		6,39	0,83	6,43	0,78	6,04	0,89	6,24	0,99	6,29	0,81
7	Gaiety		6,32	0,85	6,51	0,86	6,08	0,99	6,31	0,99	6,43	0,79
8	Honesty		6,33	0,89	6,39	0,80	5,84	1,02	6,24	0,97	6,30	0,88
9	Humility		6,13	1,03	6,19	0,96	5,79	1,01	6,05	1,09	6,23	0,89
10	Sympathy		6,42	0,86	6,59	0,68	6,22	0,89	6,35	0,94	6,42	0,85
12	Ethics		6,44	0,74	6,48	0,71	6,29	0,82	6,49	0,80	6,41	0,76
14	Image		6,25	0,90	6,32	0,86	6,30	0,75	6,39	0,84	6,28	0,87
16	Cordiality		6,46	0,72	6,47	0,74	6,26	0,87	6,42	0,77	6,42	0,76
20	Motivation		6,43	0,72	6,52	0,75	6,25	0,77	6,40	0,84	6,41	0,73
23	Empathy	6,26	0,89	6,33	0,95	6,11	1,00	6,14	1,01	6,22	0,92	
3	Suitability	Technical-pedagogical Quality	6,40	0,75	6,29	0,82	6,05	0,85	6,33	0,71	6,35	0,78
4	Instruction		6,24	0,81	6,40	0,74	6,21	0,75	6,33	0,84	6,30	0,82
5	Technical Training		6,60	0,61	6,37	0,78	6,24	0,69	6,43	0,77	6,45	0,76
6	Planning		6,47	0,69	6,49	0,73	6,16	0,82	6,36	0,77	6,38	0,77
11	Fitness Level		6,39	0,77	6,39	0,82	6,33	0,72	6,49	0,79	6,48	0,73
13	Experience		6,31	0,87	6,25	0,93	6,07	0,85	6,26	0,94	6,31	0,88
15	Punctuality		6,38	0,82	6,58	0,69	6,33	0,79	6,44	0,76	6,20	0,91
17	Knowledge		6,42	0,81	6,37	0,82	6,33	0,77	6,31	0,97	6,37	0,84
18	Musical Skills		6,46	0,85	6,38	0,92	6,36	0,78	6,30	0,98	6,43	0,80
19	Innovation		6,40	0,70	6,35	0,83	6,13	0,82	6,25	0,88	6,34	0,78
21	Dedication	6,51	0,65	6,38	0,75	6,38	0,82	6,56	0,72	6,47	0,69	
22	Assiduity	6,50	0,73	6,68	0,68	6,49	0,74	6,45	0,78	6,55	0,70	
24	Technical Execution	6,49	0,83	6,46	0,69	6,36	0,81	6,50	0,73	6,48	0,74	
25	Energetic	6,36	0,81	6,36	0,94	6,41	0,75	6,40	0,80	6,36	0,86	
			6,39	0,79	6,41	0,80	6,20	0,84	6,35	0,86	6,37	0,80

Trough the analysis of table 4 is possible to emphasized (positively or negatively) the following quality indicators: (1) communication ($M=6,47$) and humility ($M=6,13$) from Relational Quality, technical training ($M=6,60$) and instruction ($M=6,24$) from Technical-pedagogical Quality - Aerobics; (2) sympathy ($M=6,59$) and humility ($M=6,19$) from Relational Quality, assiduity ($M=6,68$) and experience ($M=6,25$) from Technical-pedagogical Quality - Aquarobics; (3) image ($M=6,30$) and humility ($M=5,79$) from Relational Quality, assiduity ($M=6,49$) and suitability ($M=6,05$) from Technical-pedagogical Quality - Hip Hop; (4) ethics ($M=6,49$) and humility ($M=6,05$) from Relational Quality, dedication ($M=6,56$) and innovation ($M=6,25$) from Technical-pedagogical Quality - Resistance Training; (5) gaiety ($M=6,43$) and empathy ($M=6,22$) from Relational Quality, assiduity ($M=6,55$) and punctuality ($M=6,20$) from the Technical-pedagogical Quality - Step. By dimension, is possible to verify that the Technical-pedagogical Quality have a mean value ($M=6,38$) higher than the Relational Quality ($M=6,31$).

By the analysis of the mean values per activity, is possible to understand which are the activities with the highest [Aquarobics ($M=6,41$)], lowest [Hip Hop ($M=6,20$)] and intermediate values [Aerobics ($M=6,39$), Step ($M=6,37$) and Resistance Training ($M=6,35$)]. This result raises some underlying questions. Why the perceived quality is higher in Aquarobics and lower in Hip Hop? Do the Aquarobics instructors have higher quality than the instructors from the other activities, or are the specific characteristics of each activity that makes that some quality indicators are more positively emphasized? Are the participant's characteristics (gender, educational level or practice reasons, for example) that influence the perception in accordance to the practiced activity? These questions, among others, could and should be considerers in future researches.

To compare the participant's perception, in accordance to the practiced activity, are presented the obtained results of the one-way ANOVA test (table 5). The statistical significant differences are assumed for a significance level of less than 0,050 ($p<0,050$).

Table 5. Significance level considering the application of the one-way ANOVA test

Item	Category	<i>p value</i>	Dimension	<i>p value</i>
1	Communication	0,000*	Relational Quality	0,029*
2	Availability	0,016*		
7	Gaiety	0,010*		
8	Honesty	0,001*		
9	Humility	0,061		
10	Sympathy	0,030*		
12	Ethics	0,572		
14	Image	0,706		
16	Cordiality	0,274		
20	Motivation	0,308		
23	Empathy	0,343		
3	Suitability	0,035*		
4	Instruction	0,464		
5	Technical Training	0,003*		
6	Planning	0,017*		
11	Fitness Level	0,171		
13	Experience	0,369		
15	Punctuality	0,001*		
17	Knowledge	0,878		
18	Musical Skills	0,659		
19	Innovation	0,011*		
21	Dedication	0,322		
22	Assiduity	0,021*		
24	Technical Execution	0,852		
25	Energetic	0,984		

*significance level for $p < 0,050$

The results shows that are statistical significant differences in the Relational Quality dimension ($p=0,029$). In the Technical-pedagogical Quality dimension the differences are not statistically significant ($p=0,617$). There are also statistical significant differences in the following categories: communication ($p=0.000$), availability ($p=0,016$), gaiety ($p=0,010$), honesty ($p=0,001$), sympathy ($p=0,030$), from Relational Quality; suitability ($p=0,035$), technical training ($p=0,003$), planning ($p=0,017$), punctuality ($p=0,001$), innovation ($p=0,011$) and assiduity ($p=0,021$), from Technical-pedagogical Quality. It is possible to conclude that 11 of the 25 quality indicators are differently understood by the participants. The result of this study, although with a different aim, confirms the result of the investigations of Alves et al. (2013) and Franco et al. (2004), which indicates that the practiced activity may affect the group exercise participants perception. In order to verify the origin of the statistically significant differences were presented, to the dimension and categories previous indicated, the results of the post hoc Tukey HSD test and the mean difference (table 6).

Table 6. Post hoc Tukey HSD test and mean difference, by category and dimension

Dimension	Category	Activity (A)	Activity (B)	Mean Difference (A-B)	Standard Deviation	p value	
Relational Quality	Aerobics	Aerobics	Aerobics	-0,692	0,763	0,945	
		Hip Hop	Hip Hop	2,726	0,986	0,064	
		Resistance Training	Resistance Training	0,600	0,821	0,978	
	Aquarobics	Step	Step	0,066	0,768	1,000	
		Hip Hop	Hip Hop	3,419	1,031	0,012*	
		Resistance Training	Resistance Training	1,293	0,874	0,678	
	Hip Hop	Step	Step	0,758	0,824	0,941	
		Resistance Training	Resistance Training	-2,125	1,074	0,356	
		Step	Step	-2,660	1,034	0,105	
	Communication	Resistance Training	Step	Step	-0,534	0,878	0,990
Aerobics			Aerobics	-0,500	0,108	0,000*	
Aquarobics			Aquarobics	-0,404	0,113	0,005*	
Hip Hop		Step	Step	-0,430	0,114	0,002*	
		Aerobics	Aerobics	-0,349	0,116	0,031*	
		Aquarobics	Aquarobics	-0,387	0,121	0,017*	
Hip Hop		Aquarobics	Aquarobics	-0,433	0,124	0,006*	
		Step	Step	-0,356	0,124	0,048*	
		Aerobics	Aerobics	-0,484	0,122	0,001*	
Availability		Hip Hop	Aquarobics	Aquarobics	-0,368	0,120	0,027*
	Aerobics		Aerobics	-0,349	0,109	0,017*	
	Aquarobics		Aquarobics	0,232	0,077	0,032*	
	Technical Training	Hip Hop	Hip Hop	0,361	0,100	0,004*	
		Aerobics	Aerobics	-0,311	0,107	0,044*	
		Aquarobics	Aquarobics	-0,330	0,112	0,039*	
	Gaiety	Hip Hop	Aquarobics	Aquarobics	0,381	0,090	0,000*
			Step	Step			
			Aerobics	Aerobics			
			Aquarobics	Aquarobics			

*significance level for $p \leq 0,050$

In the Relational Quality dimension, the significant differences result exclusively from the Hip Hop and Aquarobics participants ($p=0,012$). By the analysis of the mean differences is possible to verify that: the mean response of Aquarobics participants is higher than all other activities (which allows understanding that the quality is higher); the mean response of Hip Hop participants is the lowest (which indicates that the quality is lower). In the categories, like in the Relational Quality dimension, the significance differences occur mainly among Hip Hop and Aquarobics activities (communication, availability, gaiety and sympathy, from Relational Quality; and planning, from Technical-pedagogical Quality). Through the analysis of mean differences is possible to conclude that the answer values of Aquarobics participants are higher in all categories, compared with the mean answer of the Hip Hop participants. Like in the previous analysis, these results raise some questions. Why in communication category (Relational Quality) are there significant differences between Hip Hop and other three activities (Aerobics, Aquarobics and Step)? Does the Hip Hop instructors have a peculiar way of talking that defines and distinguishes them from the instructors of others group activities? Why are there differences in technical training category (Technical-pedagogical Quality) between Aerobics and two other activities (Aquarobics and Hip Hop)? Do the Aerobics instructors have more technical training than Aquarobics or Step instructors or, such specific technical training is not necessary because Aerobics is the “base” of others fitness group activities, and that specific characteristic will makes the participants perceived quality higher?

Conclusions

By the assumption that quality perception influences satisfaction (Fernández et al., 2012; Murray & Howat 2002; Nuviala et al. 2012; Papadimitriou & Karteroliotis 2000) and participants loyalty (Hoffman & Jones, 2002) is possible to conclude that a correct relation (ethics), “good manners” (cordiality), being a sympathetic

person (sympathy) - Relational Quality - don't miss the classes (assiduity), shows commitment in everything is done (dedication) and have a well-done technical execution (technical execution) - Technical-pedagogical Quality - are the quality indicators that have the highest influence in the satisfaction and participants loyalty.

In another perspective, the lower values items [humility, empathy, honesty (Relational Quality), experience, innovation and instruction (Technical-pedagogical Quality)] deserve to be considered by the fitness instructors in order to adjust their professional intervention and, thereby, improve perceived quality, satisfaction and loyalty intention. The fitness instructor must have the ability to accept criticism (humility), have a proximity relation with the participants (empathy), be a honest person (honesty) - Relational Quality - work in the fitness area for some time (experience), be original and creative (innovation) and be aware of participants performance, intervening if it is necessary (instruction) - Technical-pedagogical Quality. Being these indicators the lowest, it is recommended to improve them and, by that, avoid dissatisfaction and dropout intention.

In each practiced activity, there are more or less emphasized quality categories. In the Relational Quality: the highest mean values appear on communication (Aerobics), motivation (Aerobics and Resistance Training), gaiety (Aerobics and Step) and image (Hip Hop); the lowest mean values appears on image (Aerobics, Aerobics and Step) and communication (Hip Hop). In the Technical-pedagogical Quality: the highest mean values appear on technical training (Aerobics), punctuality (Aerobics), planning (Aerobics), fitness level (Resistance Training and Step) and energetic (Hip Hop); with lowest mean values appear suitability (Aerobics and Hip Hop), energetic (Aerobics), musical skills (Resistance Training) and punctuality (Step).

There are statistically significant differences in the Relational Quality dimension, originated from the Hip Hop and Aerobics activities. In the categories, the differences occur mainly among Hip Hop and Aerobics (communication, availability, gaiety, and sympathy - Relational Quality; and planning - Technical-pedagogical

cal Quality). These results confirm the concluded by Franco et al. (2004), that found significant differences considering the practiced activity (relative to a group exercise participants preference - Aerobics - for some behaviors of an ideal instructor), and Alves et al. (2013), that conclude the existence of significant differences in the instructor behavior (kinesis communication) also in accordance to the practiced activity (Resistance Training, Indoor Cycling, Aquarobics and Step). By the mean differences analysis is possible to conclude that the mean answer of Aquarobics participants is higher than Hip Hop participants

To understand why the perception values are lower in some categories or dimensions, according to the practiced activity, there are some questions that should be studied in future investigations:

1) Why the perceived quality is lower in Hip Hop and higher in Aquarobics? It is because the Aquarobics instructors have more quality (assiduity, punctuality, sympathy) when compared with the instructors from other activities? Are there specific characteristics for each activity (material, fitness intensity of the class, type of performed exercises, for example) that makes the perceived quality higher in some categories? The specific participant's characteristics of each activity (age, gender, reasons for practice, for example) make the perceived quality different? The Aquarobics instructors are more assiduous and punctual? The fact of the Aquarobics participants are older makes them a less demanding understanding of the fitness instructor quality?

2) Why are there statistical significant differences only in the Relational Quality dimension, and no differences in the Technical-pedagogical Quality dimension? Why are there differences just in a few categories and not in all of them? The relational component of the fitness instructor must be specific and differentiated according to the practiced activity? The communication (Relational Quality) of the Hip Hop instructors is really different? The instructors of the activities that have been developed from Aerobics (Resistance Training, Aquarobics, Hip Hop or Step) require a specific technical training (Technical-pedagogical Quality)?

Regardless of these questions, it is important for all the intervenient in the fitness area (owners, general managers, technical managers, trainers and instructors) the results analysis, understanding with that the participant's perceived quality. By that, the instructor could adapt its intervention, trying to satisfy its participants, keeping them with high motivation levels and loyalty intention. In a future research, it is important to study also the participant's preferences and, crossing the perception with the preferences, effectively understand the satisfaction levels of the participants.

References

1. Almeida, L., & Freire, T. (2003). *Metodologia da investigação em psicologia e educação (3a ed.)*. Braga: Psiquilíbrios.
2. Alves, S., Rodrigues, J., Balcells, M., Foguet, O., Richheimer, P., Carvalhinho, L., Simões, V., & Franco, S. (2013). Sistema de observação da comunicação proxémica do instrutor de fitness (SOPROX-FITNESS): Desenvolvimento, validação e estudo piloto. *Revista Iberoamericana de Psicología del Ejercicio y el Deporte*, 8(2), 281-299.
3. Batista, P., Graça, A., & Matos, Z. (2008). Termos e características associadas à competência. Estudo comparativo de profissionais do desporto que exercem a sua atividade profissional em diferentes contextos de prática desportiva. *Revista Portuguesa de Ciências do Desporto*, 8(3), 377-395.
4. Campos, F. (2015). *A qualidade do instrutor em atividades de grupo de fitness*. Tese de Doutoramento não publicada, Universidade de Trás-os-Montes e Alto Douro (UTAD) - Vila Real.
5. Cloes, M., Laraki, N., Zatta, S., & Piéron, M. (2001). *Identification des critères associés à la qualité des instructeurs d'aérobic. Comparaison des avis des clients et des intervenants*. Presented at the colloque "L'intervention dans le domaine des activités physiques et sportives", Grenoble - Switzerland.

6. Fernández, J., Carrión, G., & Ruíz, D. (2012). La satisfacción de clientes y su relación con la percepción de calidad en centro de fitness: utilización de escala CALIDFIT. *Revista de Psicología del Deporte*, 21(2), 309-319.
7. Franco, S., Cordeiro, V., & Cabeceiras, M. (2004). *Perception and preferences of participants about fitness instructors' profile. Comparison between age groups and different activities*. Presented at the Congress of the European College of Sport Science, Clermont-Ferrand - France.
8. Franco, S., Rodrigues, J., & Balcells, M. (2008). Comportamento pedagógico dos instrutores de aulas de grupo de fitness de Resistance Trainer. *Fitness and Performance Journal*, 7(4), 251-263.
9. Franco, S., Pereira, L., & Simões, V. (2008). *Dropout motives in exercise*. Presented at the Congress of European College of Sport Science, Estoril - Portugal.
10. González, I., Erquicia, B., & González, S. (2005). *Manual de aeróbic y step*. Barcelona: Paidotribo.
11. Hoffman, J., & Jones, K. (2002). Reducing attrition from exercise: practical tips from research. *ACSM Health e Fitness Journal*, 6, 7-10.
12. Laureano, R. (2011). *Testes de hipóteses com o SPSS. O meu manual de consulta rápida*. Lisboa: Sílabo.
13. Maroco, J. (2007). *Análise estatística com utilização do SPSS (3a ed.)*. Lisboa: Sílabo.
14. Maroco, J. (2010). *Análise estatística com PASW statistics*. Lisboa: Report Number.
15. Maroco, J., & Bispo, R. (2003). *Estatística aplicada às ciências sociais e humanas*. Lisboa Climepsi.
16. Murray, D., & Howat, G. (2002). The relationships among service quality, value, satisfaction, and future intentions of cus-

- tomers at an Australian sports and leisure centre. *Sport Management Review*, 5(1), 25-43.
17. Nuviala, A., Pérez-Ordás, R., Osuna, M., Grao-Cruces, A., Nuviala, R., & Jurado, J. (2012). Calidad, satisfacción y valor percibido de los usuarios de un servicio deportivo público. *Revista Movimento*, 18(4), 11-32.
 18. Papadimitriou, D., & Karteroliotis, K. (2000). The service quality expectations in private sport and fitness centers: a reexamination of the factor structure. *Sport Marketing Quarterly*, 9(3), 157-164.
 19. Pedragosa, V., & Correia, A. (2009). Expectations, satisfaction and loyalty in health and fitness clubs. *International Journal of Sport Management and Marketing*, 5(4), 450-464.
 20. Tuckman, B. (2005). *Manual de investigação em educação (2a ed.)*. Lisboa: Fundação Calouste Gulbenkian.
 21. Wininger, S. (2002). Instructors and classroom characteristics associated with exercise enjoyment by females. *Perceptual and Motor Skills*, 94(2), 395-398.