



Title: Effects of a training program for fitness instructors based on STD and BPN on the attitude of users of a private university gym

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En la actualidad

- Despite the great benefits of physical activity mentioned above, currently one in four adults and four out of five adolescents worldwide do not undertake enough physical activity to obtain health benefits.

A nivel mundial 1 de cada 4 adultos no alcanza la recomendación (WHO, 2022).

In Mexico only 38.9% of adults over 18 years perform some type of physical activity in their spare time (National Institute of Statistics, Geography and Informatics, 2021)

The practice of physical activity can be influenced positively or negatively by various factors

Personal, environmental and social.

Social factors: considered as a determinant of physical activity, pointing specifically to social support “the perceptions of pressure (real or imaginary) exerted for another to change a behavior, attitude, or belief” (Gammage and Lamarche, 2014).

Fitness instructor has become a key figure in terms of motivation to physical activity

According to several reports, these leaders possess characteristics that are relevant in terms of the permanence in training programs of their customers.

Self-determination theory (Deci & Ryan, 2000)

- A useful and valuable approach for instructors and leaders in charge of leading activities like exercise due to the importance it gives to a routine that is focused on high quality motivation and psychological well-being.
- Through the understanding and satisfaction of basic psychological needs, the participants' motivation and personal growth can be enhanced, increasing the possibility of permanence in the activity.
- People's behaviors (physical activity in this case) are influenced by three basic psychological needs: autonomy, competence, and relatedness to others
- The adoption of strategies based on SDT and Basic Psychological Needs could positively influence the practitioners' attitudes towards the instructor and the physical activity itself.

Methodology

Design

- Pre-experimental, comparative study, with pre and post measurements

Sample

- 441 fitness área users (263 users of fitness classes and 178 users of strength training area).
- 9 instructors in charge of leading the fitness classes and strengthening and training programs at the university gym.

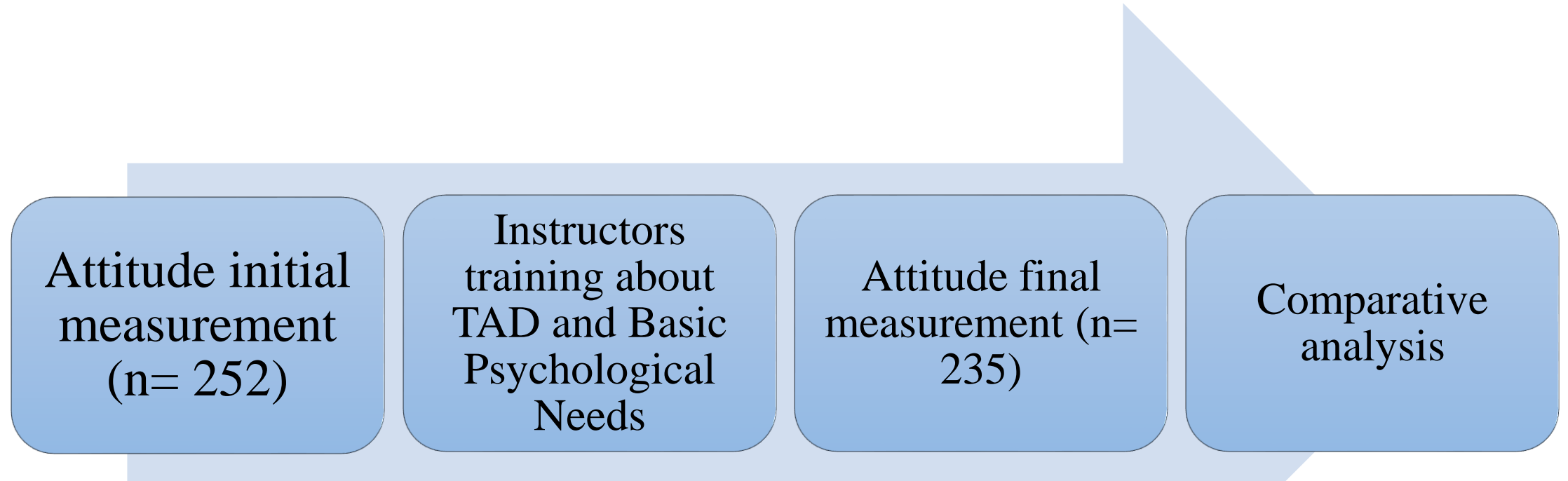
Eligibility criteria

- To be users of the Physical Activity Dome
- Had just completed a fitness class (regardless the modality) or exercise in the strength area.



Imagen obtained from Creative Commons, 2021.

4 stages



Instructors training about TAD and Basic Psychological Needs

Duration: 8 weeks /100% staff

Topics:

- Motivation, SDT and Psychological Basic Needs.
- Identification of the current instructor style, at a personal and team level
- The autonomy concept applied to fitness
- Identification of behaviors that influence the user's competence.
- Constructing a model of service orientated to promote competence in users of the fitness services

Modalities: Individual, group and through digital resources (WhatsApp y online forms)

1. Initial measurement of attitudes toward fitness instructors (CA-ICF and CA-IF questionnaires)

CA-ICF

- $n = 147$
- Min 111 máx 170
- Media: 155.96

CA-IF

- $n = 63$
- Min 25 máx 132
- Media: 108.28

2. Instructors training about TAD and Basic Psychological Needs

- 20 training sessions:
 - 2 group (at the beginning and at the end of the 8 weeks)
 - 2 individual sessions with each one of the instructors.
- 4 infographic material sent trough whatsapp (1 every two weeks)
- An online questionnaire was sent out (during the last week) with questions related to the topics covered in the training.
- The information obtained was used to better understand the appropriation level of the concepts and determine the content of the final group session.

3. Final measurement of attitudes toward fitness instructors (CA-ICF and CA-IF questionnaires)

CA-ICF

- $n = 116$
- Min 23 máx 170
- Media: 157.01

CA-IF

- $n = 115$
- Min 85 máx 170
- Media: 151.10

4. Comparative analysis *CA-ICF* for paired samples *t de Student*

Paired samples statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	OCT18PRE	155.9655	116	14.41131	1.33806
	OCT19POST	157.0172	116	17.05693	1.58370

Paired samples correlations

		N	Correlation	Sig
Pair 1	OCT18PRE & OCT19POST	116	.230	.013

Paired Samples Test

		Paired Differences			95% confidence interval of the difference		t	df	Sig. (2.tailed)
		Mean	Std. Deviation	Std. Error Mean	Lower	Upper			
Pair 1	OCT18PRE & OCT19POST	-1.05172	19.63575	1.82313	-4.66300	2.55955	-.577	115	.565

5. Análisis comparativo *CA-IF* para muestras emparejadas *t de Student*

Paired samples statistics					
		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	OCT18PESASPRE	108.2857	63	21.76223	2.74178
	OCT19PESASPOST	151.1270	63	17.88268	2.25301

Paired samples correlations				
		N	Correlation	Sig
Pair 1	OCT18PESASPRE & OCT19PESASPOST	63	.199	.118

Paired Samples Test										
Paired Differences										
		Mean	Std. Deviation	Std. Error Mean	95% confidence interval of the difference	Lower	Upper	t	df	Sig. (2.tailed)
Pair 1	OCT18PESASPRE & OCT19PESASPOST	-42.84127	25.27028	3.18376	-49.20551	-	36.47703	-	62	.000

According to the results obtained from the comparative analysis:

CA-IFC (group classes)

- Correlation level of .230 and a significance index of .565 (no significant difference).

CA-IF (strength area)

- A correlation level of .199 and a significance index of .000 was obtained (significant difference).

These results could be explained by considering two main factors:

1. The social context where the interaction instructor-student takes place (group-individual)
2. The academic profile of the instructor in each area.

These findings:

- Concur with other studies in the fact that it is possible and effective to train instructors to adopt the SDT basis in their teaching style.
- Are relevant because:
 - Highlight the important role of instructors as health promoters
 - Confirm the need of training these professionals in basic aspects of motivation applied to physical activity, as well as communication styles in order to improve the interaction quality and thus, the permanence of the users they attend.

Conclusions

1. The implementation of training programs for strength instructors based on SDT and BPN promotes positive changes in the instructor-student interaction.
 2. These changes result in improved attitudes of the users they serve → relevant factor to promote higher volumes of physical activity.
- Limitations:
 - The collection of detailed information about the academic and professional profile of the instructors.
 - To measure attitudes towards instructors separately.



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