



Journal of the International  
Coalition of YMCA Universities

## Presentation

The International Coalition of the YMCA Universities is a partnership of universities, colleges and professional training institutes that belong to or are related to several national YMCA movements. They are university-level educational institutions that promote training to prepare professionals in the several areas of relevant services offered by the YMCA movement. The idea of the partnership was initiated in the year 2000. The present coordinator is Maurício Massari, of FEFISO, SP/BRAZIL.

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### **Editorial**

Dear colleagues of the YMCA Universities Coalition,

The World Health Organization (WHO) defines health as “a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity”.

YMCAs around the world work with health. In exercises, in our reflections, in our social work and other projects. It is good to remember that health is not only connected with exercises and it can be thought when we provide a good life for our partners.

In this edition of the YMCA Coalition Journal, "YMCA and health" was the theme. We have, for our reflections, three articles, two essays and two sharing experiences.

The first article from Brazil - FEFISO (YMCA Physical Education College) had as objective to analyze the profile of the users of anabolic hormones (AH) in resistance training practitioners. It is an important reflection about the use of these substances in our society and about getting a "perfect" body (Ganzarolli, Machado, Pires, Oliveira, Gianolla).

The second article (Silva & Borges), from FEFISO too, analyzed gait parameters in elderly women, investigating possible changes in gait using kinematics. Important paper about elderly because this population grows fast.

Another paper (Gianolla) identified the areas of activity that students and teachers of a Physical Education College in the countryside of São Paulo (FEFISO / ACM) have indicated as areas that they wish to work on after finishing the course and the article had the objective of identifying the three most cited areas.

## EDITORIAL

George Jennings (from School of Sport and Health Sciences, Cardiff Metropolitan University, Cardiff, UK) provided us with a reflexion about interdisciplinary and transdisciplinary research into martial arts and health in his study, with the title “Pursuing health through techniques of the body in martial arts”.

Another essay, written by Bárbara Ibinarriaga-Soltero (Estudiante de Doctorado in Escuela de Ciencias Sociales, Universidad de Cardiff Gales, UK) discusses critically the concept of mindfulness.

Furthermore, two students from FEFISO went to YMCA Mexico for 2 months as exchange students. This is part of the agreement between FEFISO – YMCA México (in the Universities Coalition). Monique Kathleen Soares de Camargo e Vitoria Salmazo shared their experiences about this program.

I would like to thank teacher Gisele de Oliveira for the work in this edition. Without her this edition could not be possible.

I still dream about one article from each College in our Journal.

The next theme for our Journal (9<sup>th</sup> edition) is “YMCA AND CHRISTIANITY”. I’m sure that in this theme YMCA movements have many scientific “stories” to tell us.

Thank you.

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**Articles**

**THE USE OF ANABOLIC HORMONES...****The use of anabolic hormones by resistance exercise practitioners**

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## **THE USE OF ANABOLIC HORMONES...**

### **Abstract**

The term "hormonal modulation" has been used to justify hormone replacement for aesthetic purposes or for sports performance. Replacing hormones when properly indicated may come with numerous benefits. When performed by a professional, the risks inherent in this therapy are minimized. However, abuse of these hormones mainly by resistance training practitioners has now been noted. Therefore, the aim of the present study was to analyze the profile of the users of anabolic hormones (AH) in resistance training practitioners. The sample consisted of 53 individuals (43 men and 10 women). Access to information was obtained through the use of a questionnaire containing open and closed questions. The main results showed a predominance of the male gender where the involvement with the use of AH begins in great part in the youth and remains for long years. We could also verify that in a most part of sample there was not professional accompaniment as much medical, nutritional or by a physical educator. The purchase of AH and ergogenic resources in general is easily accessible and is mostly illegal. The side effects presented were diverse and worrying. Thus, it is concluded in this investigation that the indiscriminate use of AH is common among users who generally show no concern for side effects or the risks of muscle, joint or internal organ damage. Leaving doubts and questions about such behaviors presented.

**KEYWORDS:** hormones, anabolism, side-effects, bodybuilding.



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### Introduction

Regular physical activity with moderate to vigorous intensity produces physiological and morphological changes, regardless of the individual's age. It is clear that the size of these changes depends on several factors such as the initial state of fitness, genetics and the specific type of training (Bauman, 2004; Fleck & Kraemer, 1999).

We can define the resistance training as the practice of physical exercises with muscle contractions performed against gradable and progressive resistance, and one of its greatest effect is the increase in muscle mass (Ratamess et al., 2009)

Since substantial results are not achieved quickly, many resistance training practitioners have sought to accelerate this process with the use of synthetic AH. Including the advantage seen by users is the ability of these compounds hormonal prevent excessive catabolism and loss of muscle mass, also accelerating weight loss and consequently improves the muscle appearance, knew as “muscle definition” (Leder et al., 2000 as cited in Barquilha, 2009).

The use of these hormones in the therapeutic environment has always been linked to the treatment of diseases and physiological deficiencies. However, after discovering the anabolic effects on skeletal muscle and the great increase of force related to this use, it was also acquired by individuals who did not have any pathology or deficit of these hormones. This search has been turned to an increasing gain of strength, hypertrophy, resistance and athletic performance. Among these individuals, there is an immense variety from teenagers and ordinary people not athletes, *bodybuilders* to athletes (Hartgens & Kuipers, 2004; Silva et al., 2002).

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The constant search for improvement in physical performance and shapelatry, although very old, is still perceived today. This group has grown considerably in gyms, where practitioners crave muscular bodies and low subcutaneous fat. Many individuals adopt this practice as a lifestyle, some just for personal satisfaction or health, others go beyond and seek through competitions, such as bodybuilding, to be elected as the "perfect body", the most beautiful aesthetically.

In the midst of all the information obtained in scientific research and with the perceptible growth of AH users not only in the athletic environment, but also by common Bodybuilders who do not aim to participate in competitions but rather to aesthetic improvement, we started field research to gain a greater understanding on the subject, comparing with the existing literature.

Similar surveys were conducted in other cities, such as São Paulo, for example, involving 209 bodybuilders in 3 different gyms, of whom 19% declared to be users or former users of AH. According to the research, the main factors that induced them to start using were the possibility of improvement in body aesthetics, followed by maintenance of health. This research also included questions about muscular training levels, dietary supplementation, steroid types and forms of use, association of other products with steroid use and accessibility (Silva & Moreau, 2003). Therefore, the objective of this work was to analyze the profile of the anabolic hormone users living in Sorocaba.

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### **Methodology**

Based on this knowledge, the present study sought to understand in practice, through the interview, the reason for the great demand for anabolic hormones and what changed in the life of these users after the beginning of the use, relating the results with the beneficial and collateral effects experienced. We also sought to understand how these individuals use and live their lives by relating anabolic hormones and the practice of bodybuilding in academies.

The methodology involved a survey in which respondents provided data by means of a questionnaire with closed questions. The interview was personal and the questionnaire filled out with the help of the researcher. The interviewees were advised and informed about the veracity and the objectives of the research, being this, scientific and that their name will not be divulged, only the information contained in the questionnaire. The selection criteria restricted the sample to only users of AH who practiced resistance training. The intent was to relate usage to practice, regardless of its purpose. This research was directed only in Sorocaba for purposes of cultural comparisons.

For this study, 53 individuals with AH were interviewed, of whom 79% were men and 21% were women. The age group was between 18 and 44 years of age, ranging from 18 to 22 (31%), from 23 to 27 (34%), from 28 to 32 (25%) from 33 to 37 (4%) and 38 to 44 (6%). All participants were Resistance Training (RT) practitioners and practice time ranged from 6 months to more than 9 years, but to some extent our research showed that most of the respondents had been training for a long time, about 4 to 9 years (49%).

The questionnaire had 23 questions in its entirety. The analysis had a qualitative and quantitative character, being used graphs and tables to expose the results.

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### **Results and discussion**

The results obtained in this study could provide us a better understanding of the use of AH in diverse issues, besides the perceived side effects.

Considering the results regarding professional orientation, we identified that during training in bodybuilding there is still a significant demand for guidance from a Physical Education professional (75%), however, it is still noteworthy the number of individuals who train on your own or by other professionals (25%). A healthy person, young or old, can significantly improve their physiological function through the appropriate training stimulus (Pollock & Wilmore, 1993 as cited in De Paula et al., 2007). However, it should be borne in mind that these beneficial effects of physical activity in general can be minimized or even replaced by undesirable effects when the training or physical activity program is not guided by a competent professional, being more susceptible to suffer symptoms such as cramps, muscle and joint injuries, dehydration, fainting and even myocardial infarction (Astrand & Rodahl, 1987 as cited in De Paula et al., 2007).

In the present study, conducted in Sorocaba, 92% of those interviewed used sports supplements combined with diet.

According with the Brazilian Society of Sports Medicine Guideline (2009), for individuals who do not seek maximum performance nor desire to be high level athletes, a balanced diet is sufficient for health maintenance and good physiological performance.

Regarding the diet, that is, the control of the quantity and quality of the ingested kilocalories is followed by 83% of the interviewees. Of these 83%, only 20% seek guidance from a professional in the area of nutrition, and most individuals (40%) set up their own diet,

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based on fads and/ or self-research. The orientation of the Physical Education professional also stands out (32%), followed by the medical orientation (8%), both of which are outside their professional regularities.

According with Castilho (2013) as cited in Cardoso (2013), demand for gyms has been increasing and the reason for which people seek them are diversified. The fact is that this reality is associated with the pursuit of ideal nutrition, which suits your type of training. However, most individuals do not seek the guidance of a nutritionist and initiate the use of dietary supplements under the influence of their coaches or the media. This situation, by adopting inadequate eating habits, based on lack of knowledge, delays the time necessary to reach their goals as well as increases the risk of possible side effects. The author also complements that to achieve good form, it is not enough to exercise regularly, it is necessary and obligatory the monitoring and nutritional guidance for a balanced and adequate diet, providing all the macros and micronutrients essential to keep the individual healthy and with an adequate body energy level.

Regarding the first contact that these individuals had as AH, that is, as they became aware of the existence and relationship of these AH with the practice of bodybuilding, we noticed that the greatest initial influence was of friends (47%), followed by media (23%), doctor (17%) and professor of physical education (11%), besides other factors (2%).

In a similar survey, conducted in Santa Maria - RS, Macedo et al. (1998) found that the main stimuli to initiation were related to the influence of friends (66.7%), followed by the media (33.3%), gym (16.7%), and other factors of influence (16.7%).

There are many factors that lead people to opt for the use of AH. In our data collection, a large part of the respondents said their main goal was muscle hypertrophy (50%), followed

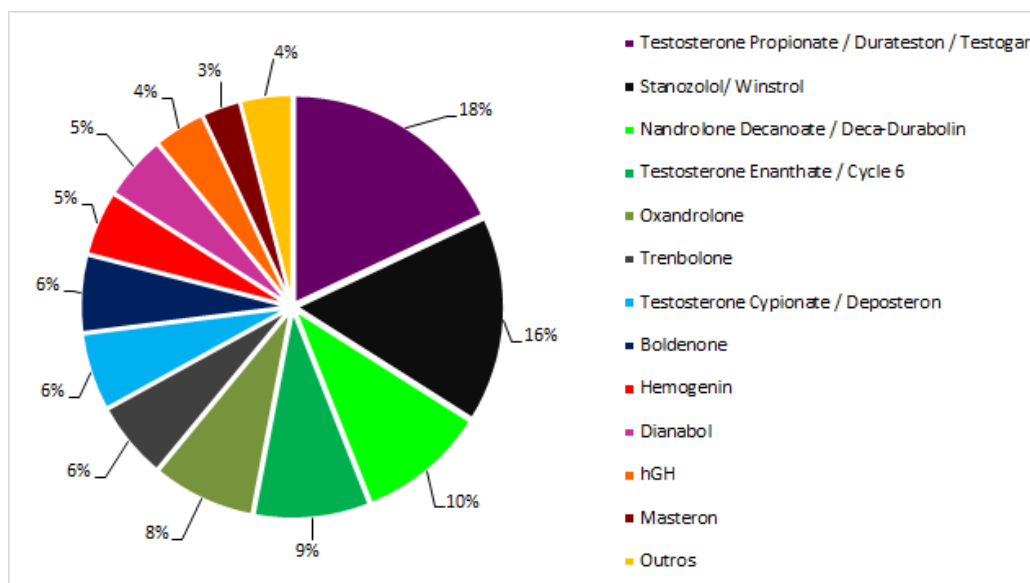
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body definition (26%), improvement in performance (11%), hormone replacement (10%) and weight loss (3%). And, according to the perception of the expected results on the part of the interviewees after the use of AH, the majority of respondents related them to hypertrophy (23%) and strength gain (28%).

For Santarém (2012), regardless of goals, we must respect people when making decisions about life itself, since most put health at risk with the use of AH to achieve aesthetic goals. But it is immoral to induce people to take risks of diseases caused by the use of drugs and, from the professional point of view, is considered a lack of ethics.

Among the active ingredients of mainly anabolic hormones used in this research are described in **Graph 1**. As we can observe, testosterone propionate (18%) and stanozolol (16%) were the most used. GH (4%) and insulin (1%) were few cited, probably because of their high cost.

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Graph 1. Mainly anabolic hormones used by resistance training practitioners.

In fact, self-medication related to drugs of any kind, is part of the Brazilian culture, and its overdosage can lead to some side effect and even death (Guimarães Neto, 1997).

The results of the research by Silva and Moreau (2003) show that most individuals use more than one type of hormone, in addition to combining the use of drugs such as Ephedrine and Clenbuterol.

In our research it was not different. When questioned about the use of other drugs in association with AH use, 47% answered yes. According to those who answered that yes, the most cited drugs were Xanthinon (13%), Puran T3 and T4 (15%), Tomaxifene (11%), Clomid (7%), and Franol (7%).

Regarding the way of acquisition, 35% of those interviewed in our study said they bought from pharmacies in the city, and when asked how to bought, 73% said that they bought from the pharmacy illegally (without prescription). Another important factor is that most (39%) buy through friends, 14% through the internet, 67% can buy through the coach of their gym, and

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6% did not want to reveal. In fact, considering the results, the ease found by the users in acquiring AH without the need for a medical prescription is evident.

In general, injectable AHs are mostly used primarily intramuscularly, there is a preference in this form of use because they present a higher survival rate, which can be taken weekly or monthly and have a lower hepatotoxicity. On the other hand, oral compounds are daily consumed and offer greater risks of liver damage, but are seen as advantageous because they are eliminated more quickly by the body, thus reducing the risks of positivity in the anti-doping control of athletes. Other forms of administration of AH was found recently, as the transdermal, by placing seals on the perineum releasing the anabolic androgenic steroids at regular doses, and also subcutaneous implantation in the infrascapular region or posterior axillary line (Ribeiro, 2011; Pope et al., 2013 as cited in Rocha et al., 2014).

Regarding this preference of use, there was similarity in our research. The results show injectables with 57%, oral 36% and cream 7%, with no reports on other forms of use. When asked about the application, 57% reported self-inoculation, 23% asked a friend to inject the hormone, and only 20% received the application of a trained professional (pharmacist, doctor, nurse).

In this study, we found that most individuals have used AH on average for 4 years and that a significant percentage have used them for about 10 years.

Barquilha (2009) found that a good part of the users already elaborated their own cycle (37.5%), while some also counted on the help of friends (32.5%). However, most individuals (45%) stated that the teacher of bodybuilding (physical educator) was responsible for the development of the cycle. The author claims to be a cause for concern because it takes into account that it is the duty of a physical educator to promote student health, which would



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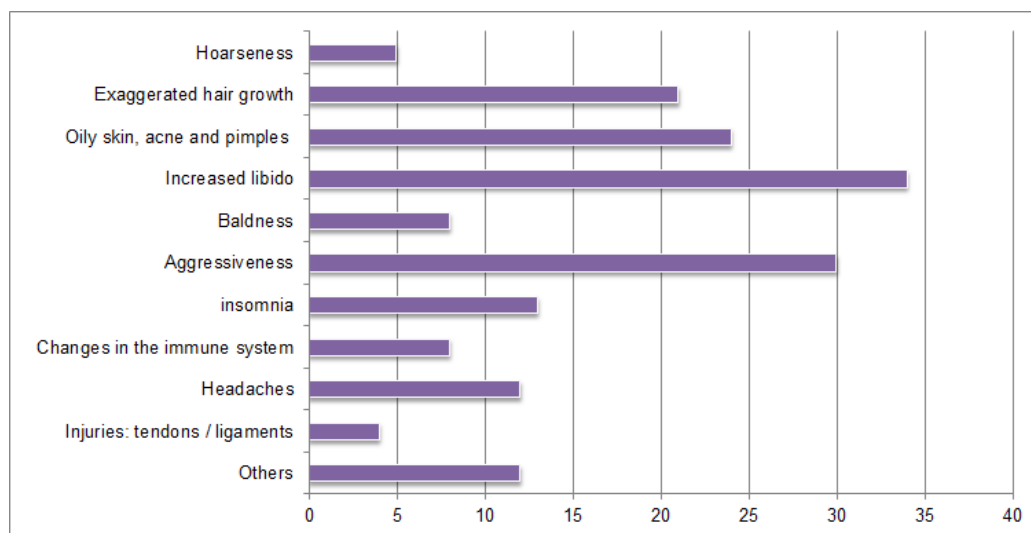
counteract the use of anabolic hormones without a medical prescription. Of the 53 interviewees, 74% reported using hormones in the form of cycles. Of these, 27% set up their own cycle, 27% seek medical advice (it is not known if the doctor sought is specialized in the subject), 26% seek the assistance of the physical education professional and 20% rely on the friend to mount the cycle. The other interviewees (26%) said they did not perform cycles, that is, they used in an uninterrupted manner taking breaks when they felt it necessary (by perception). Regarding post-cycle therapy (PCT), 57% of users performed it.

According to Ferreira et al. (2007), the main concern in his research and research used as a reference, has been in relation to the increase in the frequency of the use of AH by the attending of gymnasiums and in the sports environment, due to the adverse effects that these substances can cause irreversible damage or even death in both men and women. Regarding the use of AH, Pärssinen et al. (2005) after evaluating 62 weight lifters, observed the occurrence of premature death in 12.9% and only 3.1% in the control group. The author also cites several undesired effects, including endocrine, reproductive, hepatic, cardiovascular, immunological, musculoskeletal, and psychological nature.

For Fleck and Kraemer (1999), the most mentioned side effects were mood swings (73.3%), irritability and aggressiveness (53.3%), acne excess (50%), increase or decrease in libido (43.3%) and gynecomastia (23.3%) (Silva et al, 2007).

As we can see in **Graph 2**, our research has reported some side effects related to the use of AH.

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Graph 2 – Mainly side effects in both (men and women)

Overall, in the effects perceived by both genders, almost 35 individuals reported increased libido during use. Other factors of higher perception were increased aggression, exaggerated growth of the hairs, more oily skin and increased pimples and acne, in addition to hoarseness, baldness, insomnia, changes in the immune system (observed by the higher prone to diseases), headaches, tendon and ligament problems, among others.

There were no significant reports of injuries, and only 4% of the 53 interviewees reported having any type of lesion related to the use of AH.

When we analyzed men and women separately, we found that the most commonly reported side effects were testicular atrophy (14 individuals), gynecomastia (14 individuals) and decreased sperm production (6 individuals). In women, 8 reported thickening of the voice, 8 alterations of the menstrual cycle, 5 perceived that their appearance was masculinized and 4 observed increase of the clitoris.

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### Conclusion

In the end of the analysis of the results we can conclude that each one of the questions involves a complex theme, being evident the importance and necessity of being studied in a more specific and in depth form.

The search for the idealized body in both the competitive and aesthetic aspects occurs by individuals from very young age. This has already been seen as a social problem that can affect health, especially in those in the stage of physical and biological development. Also disturbing is the facilitated acquisition of AH not only in the "black market" (internet, clandestine laboratories), but also with fellow academics and even in pharmacies under illegal sale.

Besides the aspect of illegality, it is the indiscriminate use without any professional guidance or accompaniment, which independently of the age can generate damages to the health of the users of AH, not counting on the greater susceptibility to injuries, mainly in cases in which the training is not oriented by a physical education professional.

Among the most used AHs are Testosterone Propionate (Durateston, Testogar) and Stanozolol (Winstrol) and among the most perceived side effects of both genders are the excessive increase in oiliness of the skin, libido and aggressiveness, the latter being the most worrying. What is striking is the fact that even with all the side effects presented, users did not express any major concerns about the risks they present to their health in relation to the drugs they use, as well as their mixtures and overdoses, ignoring the demand for medical advice.

Regarding the training time, there is a gain in benefits related mainly to hypertrophy, which is mentioned as the main purpose of the use. So why about the combination of AH? In

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many of the presented cases, without the individual noticing or admitting it, there may be a manifestation of an addiction to the drug used.

In questions about diet and use of supplements it is necessary to understand the real need of each individual who participated in the research, since it is notable that most do not seek the help of a professional, preferring to copy the diet of the friend or acquaintance that "worked" without knowing whether the physiological needs will be the same, since the biological individuality was not taken into account.

This study suggests that the research should be continued in order to discuss each question in an individualized way, relating the data. In addition to comparing and seeking new scientific works involving the subject and possibly new field research.

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**The analysis of the gait in healthy elderly practitioners and not practitioners of the  
resistance training**

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### **Abstract**

The objective of this study was to analyze gait parameters in elderly women, investigating possible changes in gait using kinematics. Six elderly women participated in the study, three of them practicing resistance training for between 1 and 3 years, with a frequency of 3 times a week, and 3 elderly women who did not practice resistance training, however, practitioners of other physical exercises. Retro reflective markers were placed in the Sagittal plane, Lateral view in certain anatomical points of the subjects, in sequence they were submitted to the test "Timed get up and go", found in Podsiadlo and Richardson (1991). The test was filmed in the Sagittal plane, Lateral view with a Fujifilm Hs10 Finepix model camera with a capture frequency of 60 Hz, the video analysis was performed in the free software Kinovea® version 0.8.15. It was concluded from the data demonstrated by the analysis of the videos that the results found were not statistically significant ( $P < 0.05$ ), but in the results of the present study, a trend of sitting in more time was observed in the group which performed the resistance training (1.3 seconds), and that can demonstrate a greater control of the eccentric phase when the seated action takes place.

**KEYWORDS:** Gait. Elderly; Training; Kinematics.

## **Introduction**

Human gait can be understood as a cyclical movement with loss and recovery of balance due to the constant variation of the position of the body mass center that promotes instability, including many aspects that go beyond a simple act of positioning one leg in front of the other. The instability is compensated by the movements of the legs that vary between the supporting phase, which can be unipodal or bipodal, and balance, phase in which the leg is free in the air. Thus, at the end of the balance phase, the center of mass is posteriorized with respect to the leg previously extended and begins to rise, due to the kinetic energy, at the beginning of the support phase after touching the calcaneus in the soil (Carvalho, Andrade, Tartaruga, 2015).

The interest in study is aroused by being a motor activity of extreme impact and essential in people's lives, that can also be affected by injuries that impact the functionality of joints especially of lower limbs. The individualized evaluation of human gait tends, among other factors, to allow the orientation of the development of strategies of therapeutic interventions, for example, for the rehabilitation of orthopedic injuries, seeking to minimize the recovery of a possible problem (Soares, 2012).

The development of a normal gait depends on mechanisms controlled by the Central Nervous System adapting itself to the capture of stimulus, processing and integrating the received information and elaborating adequate responses, the human gait is an essential mechanism to the maintenance of the functional independence. There are specific areas in the brain of gait control, tonus, muscle strength, motor control, balance, sensitivity, motor coordination, the proper functioning of these structures are responsible for the development of a normal physiological gait (Lira et al., 2011).

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According to Bridenbaugh and Kressig (2011), gait is a complex motor task usually performed automatically by healthy adults. However, in special groups as in the elderly such work requires more attention to motor control when walking than in young adults. Falls, often with serious consequences, may be the result of this action. The gait impairment is one of the major risk factors for falls, changes in certain gait parameters may be signs of falling risks. Such gait changes are often discrete to be detected by naked eye observations.

The aging process in the elderly is associated with physical, physiological, psychological and social changes, as well as the appearance of chronic-degenerative diseases resulting from inadequate life habits, among other factors, the non-practice of regular physical exercise, which are reflected in the reduction of the autonomy to perform daily life activities, in this sense, the practice of exercises as a strategy to prevent losses in functional fitness components has been emphasized. The reduction of functional fitness and the functional capacity decline can also result from lack of exercise, contributing to the manifestation of several diseases (Tribess, Virtuoso Junior, 2005).

Maciel (2010) cites that some morphophysiological modifications that occur in the individual during the aging process limit their autonomy, and consequently independence, the maintenance of the functional capacity of the elderly is one of the factors that contribute to a better quality of life of this population, in this age group, planning for the development of physical capacities, such as strength, must occur according to the needs of this population, in order to provide a series of specific benefits to the biopsychosocial health of the elderly.

Resistance training can be a benefit allied especially to special groups such as the elderly, since their work helps in combating the reduction of muscle mass that happens naturally with the aging process, their training is also based on strength improvement strands, a capacity that

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the elderly need to develop to improve their well-being and perform their daily activities more safely, and to complete those same tasks with less effort, since their body would be better equipped to perform these functions (Baechle, Westcott, 2013).

The decay of some elements such as lean mass, muscle strength, speed of reaction, and with this in return the increase of adipose tissue, number of falls due to muscle weakness and reduction of balance, can be observed for reasons generated by the reduction of physical fitness generated by aging, in this sense resistance training can have great effectiveness in the well-being of the elderly (Montenegro, 2011).

Strengthening weakened muscles is key to gaining muscle balance around the joints. People who do resistance exercises regularly to keep the muscles involved in walking stronger, for example, could help in the decrease of the degeneration of the joints involved in walking, controlling the impact on the ground during walking. The gait is the most used form of locomotion by humans and involves the participation of muscle groups of the whole body, thus there are problems with the performance of the neuromuscular system in the elderly occurring through the aging process, the coordination and balance during gait is influenced, increasing the risk of falls (Coelho, Arantes, 2005).

The development of adequate training program according to the inherent needs of the body of the elderly is fundamental, regular physical exercises can bring important benefits to gait and decrease the risk of falls, a prior assessment of gait becomes noticeable in this strategy and planning, gait can present several changes due to the aging process and implications on the quality of life and functional capacity of the elderly (Bianchi, Oliveira, Bertolini, 2015).

## Methods

Participants in the study were 6 healthy female adults, 3 of whom practiced resistance training for between 1 and 3 years, with a weekly frequency of 3 times a week, and 3 elderly women who did not practice resistance training, but not sedentary, practicing other physical exercises in their routine such as Stretching, Water Aerobics, Swimming, Dance, Pilates. Both groups were aged range between 60 and 70 years old, and participated in the activities at YMCA Sorocaba, Downtown unit, Da Penha Street, 680.

First it was requested the signing of Informed consent form (TCLE), together with a questionnaire of anamnesis to the participants. After that, retro-reflective markers were placed in the sagittal plane, lateral view in the following anatomical points of the subjects: Lateral Malleolus, Calcaneus, 5th Metatarsus, Knee, Hip and Acromion, in sequence they were submitted to the "Timed get up and go" test, found in Podsiadlo and Richardson (1991), the participant was asked to get up from a chair (from the seated position), walk at a straight distance of 3 meters, turn around, return on the same course and sit on the chair again (with their back against the backrest).

The participants were instructed to perform the task safely and as soon as possible and their performance was verified by counting the time required to complete the task. The test can evaluate sitting balance, transfers from sitting to standing position, walking stability and gait changes without using compensatory strategies. The test was filmed in the sagittal plane, lateral view by a Fujifilm Hs10 Finepix camera, with a capture frequency of 60 Hz for the kinematic analysis of the gait of the elderly, the distance from the camera to the chair and the rectilinear trajectory of the participants was 278 cm. The analysis of the videos happened in

the free software Kinovea® version 0.8.15. The videos used had a sampling frequency of 60 frames per second (FPS), and the analysis was performed frame by frame.

## Results

TABLE 1. Double-time support and eccentric phase of sitting values during the "Timed get up and go" test (Podsiadlo, Richardson, 1991). Values presented in mean and standard deviation.

Variable	Non-Resistance Training Practitioners (seconds)	Resistance Training Practitioners (seconds)
Double-time support	0.2 ( $\pm$ 0,03)	0.2 ( $\pm$ 0,06)
Eccentricphaseofsitting	1.0 ( $\pm$ 0,55)	1.3 ( $\pm$ 0,16)

( $\pm$ ) = More or less the value of the standard deviation



## Discussion

The results were not statistically significant ( $P < 0.05$ ).

The sample number of the study was low, not allowing a more powerful statistical analysis and the volunteers of the untrained group were not sedentary. This may have influenced the results.

The data of double-time support comparing the two groups of the research, Non-practitioners of Resistance Training with the group Practitioners of Resistance Training were equal (0.2). The result of the double-time support obtained in the present study corroborated with the test applied in Santos et al. (2008), and was not statistically significant. It was analyzed in such an opportunity the elderly gait on the Kistler-Gaitway treadmill, model 9810SI, with two force platforms attached to the base, it verified other factors of the gait of the participants where it was found Statistical difference in factors such as Simple Support Time and Cadence.

The increase of double-time support phase may be a compensating factor for loss of flexibility, decreased muscle strength, and impaired elderly balance. The study of Mastandrea (2008) did not show any difference in gait compared to individuals who did not practice resistance training, but were active in other exercises. However, both groups showed superiority and significance when compared to sedentary elderly individuals, suggesting that exercises in general can functionally improve gait quality as a whole, and may be important for the prevention of falls, fractures and disabilities that may affect the elderly.

Comparing sitting in the elderly also with the "Timed get up and go" test, Allendorf et al. (2016) observed that elderly people with Resistance Training presented better performance in

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the test compared to the elderly considered physically active, and also in relation to the sedentary ones, indicating that this training may represent an interesting tool for the maintenance and / or improvement of the mobility.

In this current study, the result of the eccentric sitting phase was not statistically significant, with a difference of 0.3 seconds slower comparing the moment of sitting in the chair of the group that practices resistance training for the group that does not practice it. Even though it occurs more slowly, this action may suggest a greater and more effective control of muscle contraction of the posterior thigh muscles when sitting in elderly practicing resistance training.

### **Conclusion**

The results of the present study were not statistically significant, but a longer time was observed when sitting in the resistance training group (1.3 seconds), and that could demonstrate a greater eccentric phase control during the action of sitting. Perhaps, a future study with a larger statistical number can prove such clarification, or even the accomplishment and choice of another protocol may also help in finding other possible differences in the factors studied in this research (double-time, eccentric phase time in sitting).

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**Areas of interest for action in Physical Education<sup>1</sup>**

Fábio Gianolla, Mário Luis Ribeiro Cesaretti

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<sup>1</sup> This study is part of Fábio Gianolla's master's degree thesis.

### **Abstract**

**Introduction:** Identifying the areas of activity that students and teachers of a Physical Education College in the countryside of São Paulo (FEFISO / ACM) have indicated as areas that they wish to work on after finishing the course. **Objective:** Identify the three most cited areas. **Materials and Methods:** The study population was composed of first and eighth semester students, as well as physical education teachers from FEFISO / ACM. A questionnaire was applied with open and closed questions. The analysis of closed and open responses was performed using the Chi-square test and Kendall's coefficient of agreement. Data were considered significant at  $p < 0.05$ . **Results:** As a result, it was identified that the interviewees, students and teachers, point out the three areas that most students wish to work on after graduation: gym, sports and school. **Conclusion:** The areas that students and teachers of FEFISO / ACM showed greater interest in are: gym, sports and school.

**Keywords:** Physical Education and Training; Sports.

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### **Literature review**

Since the regulation of the Physical Education profession, through Brazilian law 9.696 / 1998, and with the work of the CONFED / CREFs System (Federal Council of Physical Education / Regional Councils of Physical Education), the professional has been conquering more and more space in the job market. Through ethical work, it has been gaining recognition and appreciation by society. This appreciation has not only been limited to the areas of education and sport, but it has awakened PFE (Professional Physical Education) to the area of Health by recognizing that physical exercise is becoming increasingly necessary for a healthy life (Guimarães, 2013).

Gyms and basic education schools are the areas that most employ PFE. In gyms, the PFE can work in the aquatic area, bodybuilding, motor development or gymnastics and as personal trainers. In elementary and secondary schools, they teach classes in the discipline of Physical Education (Vaz, 2012).

The graduation in Physical Education allows two distinct formations, one in undergraduate and one in baccalaureate. The degree in Physical Education qualifies for the teaching of Basic Education, that is, Physical Education classes for primary and secondary education (CNE Resolution CP / 1/2002). The baccalaureate in Physical Education qualifies for all work segments in the field of physical and sports activities. The licensee can work in pre-school, elementary, middle and high school education in the public and private sectors. The bachelors can't work in public and private schools; They can work at Social, sports and recreational clubs; In sports and recreation centers; Gyms; Rehabilitation clinics; Community centers, sports refereeing; Sports schools; Physical and recreational activities for the elderly; Sports



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centers and physical culture; Consulting and technical advisory services; Sports administration; Recreationist of leisure programs in hotels, beaches, squares, condominiums; Physical activities in domicile, Fitness, personal trainer; Special groups - instruct and accompany elderly, expectants, disabled, cardiac and sick adults and children in physical activities that benefit health; Performance - guide individuals and teams in the training and competition processes in competitive Olympic and non - Olympic sports; Recreation - among guests, associates and tourists in hotels, spas, clubs, condominiums and ships; Third sector - to manage, implement and develop social projects of sports inclusion; Eco tourism - coordinate outdoor activities such as mountaineering and cave exploration (Brasil, 2006) .

### **Objective**

Identify which areas the first and eighth semesters and teachers of a Private Physical Education College in the city of Sorocaba (FEFISO / ACM) indicate that they wish to work on after graduated.

### **Materials and methods**

It is an exploratory research regarding the objectives, as for the technical procedures it is a survey and the approach is quantitative (Souza, 2010).

The study context was the Physical Education College of the Young Men´s Christian Association of Sorocaba (FEFISO / ACM).

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This research followed the standards of research in humans according to Resolution 466/12 of the Ministry of Health in Brazil and was approved by the Ethics and Research Committee on Human Beings of the Faculty of Medical Sciences and Health of the Pontifical Catholic University of São Paulo under No. 53327015.8.0000.5373. A TCLE (Consent form) as elaborated, which was given to the research subjects attached to the questionnaire in two copies, one of the participant and the other of the researcher. The subjects who chose to participate in the study signed and returned one copy of the TCLE to the researcher.

The research in the Physical Education College of ACM Sorocaba was authorized by the director and responsible for the Institution of Education.

The subjects invited for this research were initially all the students of the first semesters (evening and morning) and the eighth semesters (evening and morning) and all the teachers of the Physical Education College of the Sorocaba Young Men's Christian Association (FEFISO / ACM). The research was carried out during the first semester of 2016.

The total sum of individuals enrolled in the first semester reached 100 students, 50 being from the daytime period and 50 from the evening period. Thus, 3 questionnaires were not applied, because the students were not present on the application days chosen by the coordination or did not wish to participate.

The total number of individuals enrolled in the eighth semester reached 57 individuals, 21 of the daytime period and 36 of the evening period. Therefore, 8 students did not respond because they did not wish to participate or were not present on the days chosen by the coordination and direction to apply the questionnaires.

The total number of teachers involved in the Physical Education course was 23, one of them being the researcher who authored the study and therefore chose not to participate in the

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research. Another is the director of the Physical Education College, who chose not to respond and the third teacher was on medical leave. So, three teachers were not part of the teachers' group, which totaled 20 individuals.

All FEFISO / ACM students who were attending the first and the eighth semesters, morning and evening classes were invited to participate in the study, those who were present on the days the questionnaire was applied and who signed the TCLE Students under 18 years old had to take the TCLE o that their parents or guardians who could sign authorizing their participation.

All teachers of FEFISO / ACM, independent of the professional class, who were teaching in the year of 2016 and who wished to participate in the research were invited, manifesting in the signature of the TCLE.

Students under the age of 18 who have not been authorized by their parents or guardians not were into this research.

The data were collected between April and May 2016, through a questionnaire with open questions and also closed questions with Likert scale answers.

The questionnaires were applied by the College coordination, to avoid the bias of application by the teacher / researcher. The students were approached during the classes on days that were chosen by the coordination of the College. The teachers were approached by the coordination in the teachers' room on days and times determined by the coordination.

The analysis of the closed answers of the questionnaires was done through the Chi-square test. The open answers were analyzed by the Kendall concordance test, with the aim of studying the concordances between the frequencies in descending order of the answers given

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by the first, eighth and first semester students. The data of  $p < 0.05$  will be considered significant (Latorre, 2013).

### **Presentation and discussion of results**

A total of 97 students from the first semester participated in this study, 59 males and 38 females, aged between 17 and 44 years old. From the eighth semester, 49 students participated, being 27 males and 22 females, aged between 21 and 39 years old. As for teachers, there were 20 participants, of whom 13 were male and 7 were female, with ages between 33 and 57 years old.

The mean age varied among the three groups of participants. The youngest group was the first semester students who had an average age of 20 years old. The second group was of the eighth grade students, with a mean age of 27 years old. As expected, the oldest group was of teachers with a mean age of 45 years old.

The data regarding the number of participants and their ages can be verified in table 1.

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	Participants				Total of Responders	Mean age of responders
	Men	%	Women	%		
First Semester	59	61%	38	39%	97	20,3 ± 4,6 years old
Eighth Semester	27	55%	22	45%	49	27 ± 5,5 years old
Teachers	13	65%	7	35%	20	45,5 ± 6,5 years old
Total	99	60%	67	40%	166	25,3 ± 9,5 years old

Table 1 - Characterization of participants regarding number, sex and age (Refer to questions 1, 2 and 3 of the questionnaire) FEFISO-ACM, 2016.

These data are in line with those published in the 2014 Higher Education Census in Brazil that characterizes the typical undergraduate student. According to the Census, students enter in College with an average age of 18 and finish at the age of 23. The average age found by the Census for students enrolled in higher education was 21 years old. This study showed that incoming students in the first semester of 2016 are close to that cited in the Census of Higher Education in 2014. However, for the senior student, the data show that the ages obtained in this study are higher than those obtained in the Census (Gondim, 2012).

Gondin (2002) used as a sample groups of university students in the final phase of completion of several courses, with a total of 53 students, and the average age of the graduates

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was 21 and 45 years old. The data of the graduate students of this article reflect another reality of the students and approaches the age obtained in this work.

As for the sex of the participants, the students have a total of 86 male participants and 60 female participants. These figures contradict the 2014 Census of Higher Education, which mentions that women are the most frequent students regardless of the mode of education (Gondim, 2002). However, it should be noted that the Census counts sex in all undergraduate courses, which does not reflect the micro reality of the Physical Education course (Ministério da Educação, 2014).

With regard to teachers, 13 are of the masculine gender and 7 of the feminine gender. These values are similar to those of the 2014 Higher Education Census, which indicates that the most frequent teachers are men, both in the public and private schools (Gondim, 2002).

### **Choice of students and teachers on the areas of activity of the Physical Education professional after graduation**

PFE specializes in physical activities, in various manifestations, such as gymnastics, physical exercises, sports, games, fights, capoeira, martial arts, dances, rhythmic, expressive and acrobatic activities, bodybuilding, leisure, recreation, rehabilitation, ergonomics, body relaxation exercises, yoga, compensatory exercises to work and daily activities and other corporal practices, with the purpose of providing services that favor the development of education and health, contributing to the qualification and / or restoration of adequate levels of performance and physiocorporal conditioning of their beneficiaries, aiming at the achievement of well-being and quality of life, awareness, expression and aesthetics of the movement,

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prevention of diseases, accidents, postural problems, compensation of functional disorders, and contributing to the achievement of autonomy , self-esteem, cooperation, solidarity, integration, Citizenship, social relations and the preservation of the environment, observing the precepts of responsibility, safety, technical quality and ethics in individual and collective care (Nardino, 2016).

It was the time when the Physical Education professional was only a teacher. Today, its field of activity goes from the classroom to the gymnasiums, swimming pools, sports clubs, recreation clubs, condominiums, clinics, companies (gymnastics), hospitals, hotels, spas, asylums, ships, NGOs (non-governmental organizations), and dance schools for graduates of the Bachelor degree in Physical Education (Simões, 2005).

Authors describe the areas of action of the PFE emphasizing more the areas: school, gym and sports and do not mention among the PFE attributions their work in Public Health (Nardino, 2016). Consequently, it is possible for students and teachers to do so.

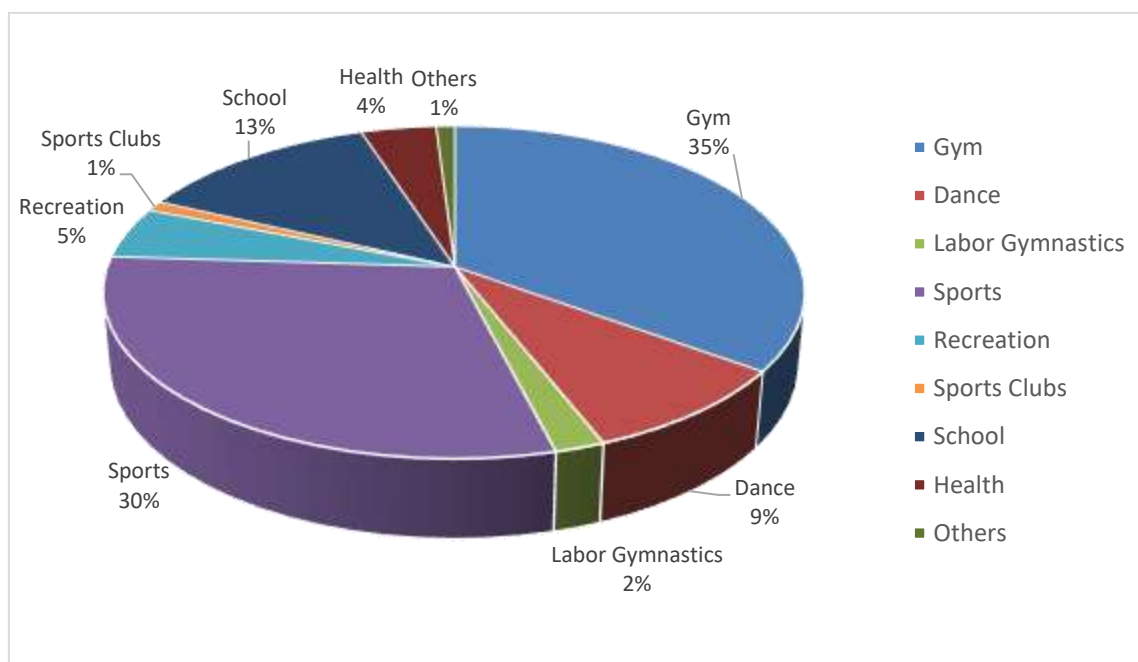
The answers presented by both the students and the teachers resemble the areas mentioned in the literature (Simões, 2000). This suggests that all groups cited areas of practice compatible with the profession of Physical Education and students and teachers cited the same areas, although in percentual number of citations that vary between groups, the areas cited by all three groups was the same, showing affinity and understanding with the areas of possibility of PFE performance.

The students were asked which areas each one would like to work on after their graduate is completed. To the teacher, the same question was asked, but questioning the perception that the students would choose. Once again a long list of answers was obtained, since more than

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one answer was possible. The most frequent answers to this question are summarized in the graphs 1, 2 and 3.

The first semester students pointed out that the areas that they would like to work on when graduated, from a higher percentage to a minor, being: gym, sports, school, dance, recreation, health, gymnastics, clubs and others. The activities of gym and bodybuilding were indicated as the one of greater choice, with 35% of the answers. Sports activities, such as working with soccer, volleyball, basketball, handball, athletics and other sports, reached 30% of the answers and the school area was the third most chosen, with formal education with 13% of answers.

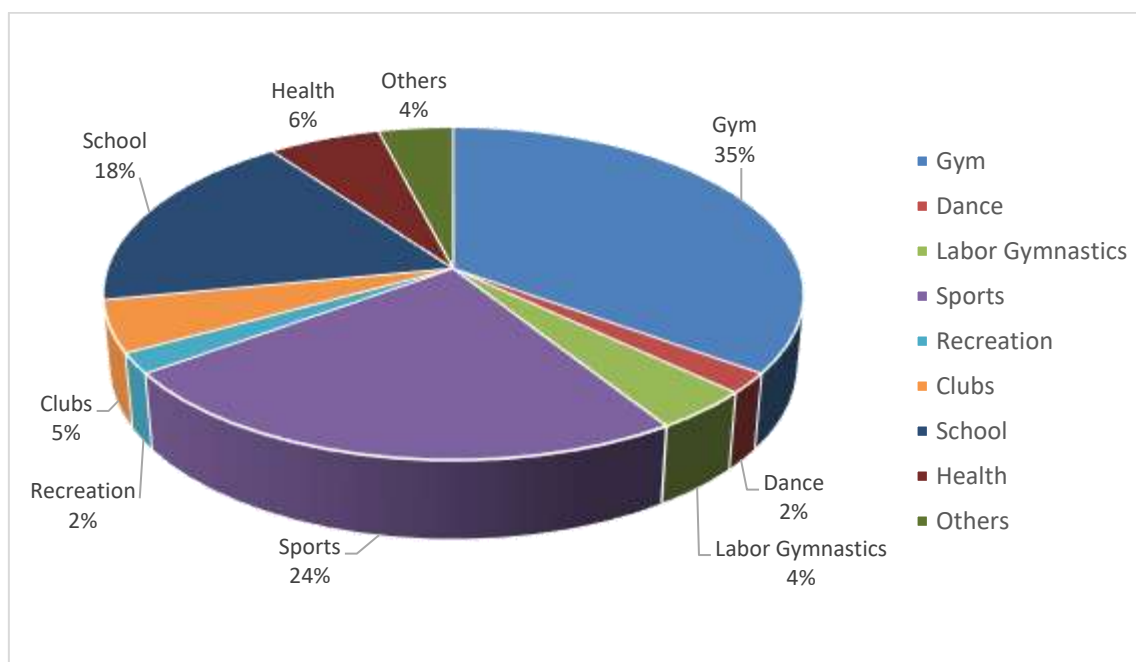


Graph 1 - Answers of the students of the 1st Semester to the question: Cite 3 areas of action that you want to work with when you become a Physical Education professional. FEFISO-ACM, 2016.



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The students of the eighth semester pointed out that the areas they would like to work on when they were graduated, such as: gym, sports, school, health, club, gymnastics, dance, recreation and others. As the students of the first semester, the three most chosen areas for action after graduation were: firstly to work in gym with 35%, secondly to work with sports with 24% and thirdly to work in the school area with 18%.



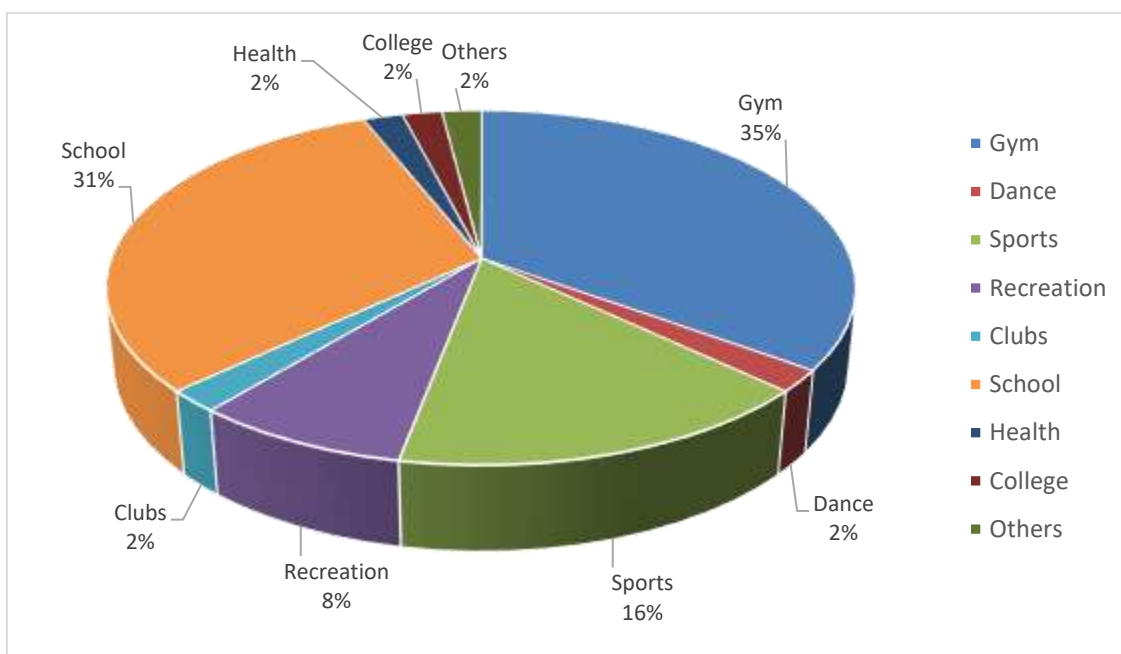
Graph 2 - Answers of the 8th semester Students Question: Name 3 areas of action that you want to work with when you become a Physical Education professional. (Referring to question 6) FEFISO-ACM, 2016.

The same areas cited by first semester students were cited by eighth-graders. Importantly, only 3 students from the 8th semester reported that they would like to work in public health.

Teachers cite the areas that they believe that students most want to work on (Graph 3) when they become professionals, the following: gym, school, sports, recreation, higher education, health, dance, club, and others. Teachers, as well as students, cite the area of

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greatest interest as being the gym with 35%, but different from the students of both semesters that secondly point sports, teachers point to the school area with 31% of answers and thirdly, Sports with 16%. Both teachers and FEFISO / ACM students reiterate pointing out the same three areas of greatest interest to the PFE after graduation.



Graph 3 - Teachers' answers to the question: List 3 areas of that you believe your student will work with when becoming a Physical Education professional. (Referring to question 6) FEFISO-ACM, 2016.

The Kendall coefficient of agreement was  $W = 0.79$  (0.0111), showing a concordance between the groups of almost 80% in the responses obtained.

### Final considerations

Students and teachers chose as their area of work for PFE after graduating, working in: gym, sports and school.

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The focus of most of the Physical Education Colleges for training is formal (formal) schooling and non-formal physical education (working in gyms, clubs, personal trainer, sports training, water aerobics, swimming, sports and other areas). Respondents chose areas that are usually the option of PFE.

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**Essays**

**Pursuing health through techniques of the body in martial arts****George Jennings**

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**Abstract**

As a broad set of body cultures, the ‘martial arts’ are a group of fighting systems from around the world that are composed of individual sets of movement that include kicking, jumping, rolling, stamping and punching expressed through a great variety of stylisations and developments. Such techniques, although originally devised for combat and military situations, might be adapted for health research and clinical applications. These ‘techniques of the body’, to follow Marcel Mauss’s well-known anthropological concept, are both biomechanical and sociocultural, and may form the basis of a new wave of interdisciplinary and transdisciplinary research into martial arts and health. The steps, leaps, stances, strikes and blocks, as individual components of fighting systems, can form the building blocks of creative research that adopts a cautious and pragmatic approach. The ways in which punches might be beneficial for arm strength and shoulder stability, for dealing with work-related stress and for forging social bonds with others, to offer one example of a specific form of movement, provide new questions and topics for specialists, teams of researchers and practitioners, as well as the new generation of multidisciplinary sport science students emerging from colleges and universities. This will require the coupling of scientific rigour with artistic creativity – something part of the heritage of the martial arts, physical culture and the YMCA Movement more generally.

**Keywords:** Health research; human movement; interdisciplinarity; physical culture; techniques of the body.



### Resumen

Como un rango amplio de culturas del cuerpo, las ‘artes marciales’ son un grupo de sistemas de combate de diferentes partes del mundo compuestos de conjuntos de movimientos individuales que incluyen patear, brincar, rodar, estampar y golpear expresando una gran variedad de estilificaciones y desarrollos. Estas técnicas, aunque fueron creadas originalmente por combate interpersonal y situaciones militares, pueden ser adaptadas para investigación sobre la salud y aplicaciones clínicas. Estas ‘técnicas del cuerpo’, para seguir el concepto bien conocido de Marcel Mauss, son ambos biomecánicos y socioculturales, y pueden formar la base de una nueva ola de investigación interdisciplinaria y transdisciplinaria sobre las artes marciales y la salud. Los pasos, brincos, posturas de pie, golpes y bloqueos como componentes individuales de esos sistemas de combate, podrían formar el fundamento de investigación creativa que adopta un camino cauteloso y pragmático. Las formas en que los golpes podrían ser de beneficio para la fortaleza de los brazos y estabilidad de los hombros, para manejar el estrés laboral y para formar conexiones sociales con los demás – para ofrecer tan sólo un ejemplo de un tipo de movimiento específico – ofrecen nuevas preguntas y temas para los especialistas, equipos de investigadores y practicantes, y nuevas generaciones de egresados en ciencias del deporte emergiendo desde colegios y universidades. Esto exige la combinación del rigor científico con la creatividad artística – algo que forma parte del patrimonio de las artes marciales, la cultura física y el movimiento YMCA en lo general.

**Palabras clave:** Investigación sobre la salud; movimiento humano; interdisciplinariedad; cultura física; técnicas del cuerpo.

## **PURSUING HEALTH...**

### **Human movement, body cultures and martial arts**

Humans, like many animals, have a great capacity for movement and corporeal expression. We can (and often do) smile, bite, scratch, jump, crawl, roll, hit, throw, pull and kick to varying degrees, within specific contexts and at different capacities according to our individual and cultural limitations. This might be because we have to in order to defend ourselves, or as part of expected conduct in a ritual or at a festival. Our expression of our civilisations and cultures via the dances, games, sports and forms of physical recreation and wrestling – to name a few – are all key elements of physical culture around the world: the ways of being physical (in)active (see Markula & Silk, 2011). Martial arts form part of these movement cultures or what the late German theorist Henning Eichberg (1998) coined ‘body cultures’ – products of group or ‘folk’ creation that help us express emotion, forge identities and move specific and integral parts of the body. They might interest health and fitness practitioners, sports medicine specialists and scholars alike who wish to study them and apply their diverse forms of movement for various populations and health problems. This is especially significant given the biological and sociocultural aspects of the human body that this theory takes as a starting point:

On one hand, the body is a part of human existence, which the human is not free just to choose freely. On the other hand, the body is not determined from the very beginning. Between the given body on one hand and the intentional body management on the other, body culture casts light on this process and its contradictions between ‘just doing’ and ‘trying to steer.’

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Body culture shows the different levels of which we call 'culture' in human life. Body culture ranges side by side with 'spiritual culture', which consists of the ideas, symbols and meanings of societal life. And body culture ranges side by side with the 'material culture' which is the world of human-made things, instruments and technology.

The body tells us an underground story, which is passing underneath the well-known history of civilization (Eichberg, 2006, p. 194).

Building upon this balanced, pragmatic idea of the body are its expression in body cultures, which vary from place to place (geographically), people to people (culturally) and across time (historically). Eichberg (2006) stressed the consequential plurality of body cultures that coexist and influence each other:

'Culture' in singular is an abstraction. The study of body culture is always a study of body cultures in plural. Body cultures are human life in variety and differences, assimilation and distinction, conflicts and contractions. This demands a comparative approach to otherness. (Eichberg, 2006, p. 197).

With such plurality comes a wealth of possibilities but also confusion for health researchers and professionals. Despite this potential exploration and application of movement knowledge, the terms 'martial arts' and 'health' are both complex and confusing. The thought of martial arts might invoke images of Asian fighting styles such as *Aikido*, *Karate* and *Judo*, but they include much more than that. The fighting systems from around the world include ways of moving and human development from as far as Mexico (for revivals of national and indigenous identity - Jennings, 2015, 2016) and Venezuela (for civilian self-defence - Ryan,

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2016) to Israel (for military training - Bar-on Cohen, 2010): in fact, where there exist many native, modified and (re)invented forms of combat that include ways of striking, grappling, wrestling, evasion and use of weapons – spheres of fighting that are often combined within an entire hybrid or holistic system. At the same time, the idea of coupling these forms of fighting with notions of health might seem strange or unexpected. Surely, martial arts are about hurting other human beings, conquering territory and scoring points – about concrete injury and subjective pain rather than their seeming opposites health and wellness? Could some be more ‘martial’ than ‘art’? In many ways, this is the case, but the martial arts in their broadest and most inclusive sense may help develop a sense of physical, mental and social wellbeing that exceeds ‘normal’ levels and overcomes and even prevents some forms of illness and pain: taking the holistic idea of health developed by the World Health Organisation (WHO) back in 1948: “A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity” (see <http://www.who.int/about/mission/en/>).

Given the complexity of human beings and their health, this definition is far from ‘perfect’ (if a flawless definition even exists), but can be a useful platform with which to build a holistic and non-dualistic body of knowledge on martial arts and human wellbeing, wellness and whatever other term is coupled with it (Callahan, 1973). Accompanying this uncertainty are debates over the proper definition of a martial art and understanding of the complexities between academic traditions, cultures and languages (Weztler, 2015) – if one way of defining martial arts and doing martial arts research should exist at all (see Bowman, 2017) – there are academic collections that demonstrate the global popularity and diversity of these forms of learning combat (Channon & Matthews, 2015; Farrer & Whalen-Bridge, 2011; Sanchez Garcia & Spencer, 2013). Such contributions from scholars in the humanities, social sciences

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and sciences have shown the martial arts in their mediated form, ‘natural’ or pedagogical form and in experimental situations, but all are concerned with the overarching element of embodiment: the physical existence of human beings in stillness and in motion (see Channon & Jennings, 2014). Others, taking a more philosophical approach, have started to consider not what a martial art is, but what it can be, which could even include video games that steer human cultivation to different directions (see Goto-Jones, 2016). In this way, martial arts can be less about defending oneself and one’s clan, community and country, and could leave room for the innovation and artistry – martial artistry to be precise – that founders and leaders of systems have continued to harness in order for these arts to survive and benefit the population in question (see, for instance, Judkins & Nielson, 2015) and for the art to continue to live (refer to Brown, 2011, on the invention and institutionalisation of other martial arts).

In this essay, I seek to sketch the possibilities for interdisciplinary research (working within and across the sciences) and transdisciplinary research (applied *in situ* or in clinical situations via practice) by uniting ‘martial arts studies’ (Bowman, 2015a, 2015b) with ‘martial arts science’ (Cynarski, 2012; Cynarski & Skowron, 2014). One such way is through a considering of the rich arsenal of movement available in the martial arts not as ways of harm, but potential ways of healing, to twist the title of Zarrilli’s (1998) chapter “to heal or to harm.” The aim of this essay is thus to offer a broad ‘sketch’ of the possibilities for scientific research and practical applications. Taking the broad and inclusive idea of martial arts as a starting point, it makes use the recent developments in martial arts scholarship as well as the theoretical concept of techniques of the body to call for practical applications and creative and publically engaged research.

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### **‘Techniques of the body’ for education, fighting and health**

As Bowman (2017) reminds us, science is underpinned by theory that frame it rather than the ‘bits’ (findings) from individual studies. Theory can act as the scaffolding for both academic research and applied practice in the field – whatever shape or form that might take (a gym, a school, a hospital or an outdoor training centre, to name a few possibilities). Many sciences are clearly defined by the theories that underpin them, and some theories can transcend and inform other sciences. One potentially rich theoretical approach is the French anthropologist and sociologist Marcel Mauss’s (1968[1934]) concept of *techniques of the body* (also known as ‘*body techniques*’ in its English translations), which is anthropological in the broadest sense of the term: historically and culturally sensitive, technical and biomechanical in some aspects whilst providing a philosophical richness at the same time. Like body cultures, which operate alongside one another in time and space (boxing, *Muay Thai* and Brazilian *Jiu Jitsu* are all available in many towns today), there are simultaneous techniques of the body that can be compared, contrasted and combined. As with the plurality of body cultures seen in the previous section of this essay, Mauss stressed this plurality:

I deliberately say techniques of the body in the plural because it is possible to produce a theory of *the* technique of the body in the singular on the basis of a study, an exposition, a description pure and simple of techniques of the body in the plural. By this expression I mean the ways in which from society to society men [sic] know how to use their bodies.

(Mauss, 1968[1934], p. 70).

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Mauss first explored such techniques of the body through ways of swimming and walking, which differ between generations and places. The breathing, spitting and general movement of a swimmer is as educated as much as it is ‘natural’, and this might also include learned gendered differences and cultural expectations. In the martial arts, such techniques of the body thus vary from culture to culture (such as between the natives of Okinawa and New Zealand Maori), from institution to institution (the Shaolin Temple in Henan Province or a part-time Kung Fu school in London), from system to system (the Southern Chinese arts of Wing Chun or Hung Kuen Kung Fu) and from style to style (various forms of the same martial art disseminated via different ‘body lineages’ – see Brown & Jennings, 2011). This concept has been readily adopted by scholars interested in embodied learning and human development in terms of ‘reflexive body techniques’ in mixed martial arts, where the techniques in question are concerned with body toughening and callusing (of the practitioner and fighter) and producing pain (mainly on the opponent) (Spencer, 2009). Regardless of the ideological and organisational directions such bodily movements and methods of dealing with them take, they are more than just about fighting and dealing with potential violence, as Ryan (2011) points out in terms of Venezuelan stick and machete attacks and counterattacks: “stepping and seeing are not merely physical attributes, but ‘body techniques,’ or technical and efficient ways of looking at, moving through and belonging to a world” (Ryan, 2011, p. 1).

To date, research into martial arts and body techniques has started to examine such movements as vehicles for physical education, for producing (and taking) pain and for nation-building purposes. The utility and flexibility of this concept is also appropriate for considering martial arts in a different manner: as forms of healing and preventative and rehabilitative medicine as understood by researchers, medical practitioners and educators. These techniques,

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when coupled with an understanding of their health paradigms, philosophies, narratives and discourses (see Jennings, 2015b), as well as sociopolitical policy, could act as a foundation for a new wave of holistic research and a body of knowledge for health and fitness experts and martial arts instructors.

### **A diversity of movement and methods for pragmatic practitioners and professionals**

The martial arts teach people to use specific parts (head, shoulder, elbow, hand, forearm, etc.) of even the entire human body (through manipulations of body weight and positioning) as a potential weapon in order to preserve life and overall health, and that of one's loved ones and neighbours, direct community and wider, perhaps 'imagined' community of the nation-state (following Anderson, 2004). These movements can be extended to the use of particular weaponry, such as the *Katana* in Japanese sword arts or spear in *Taijiquan (Tai Chi Chuan)* or the *Baat Jaam Do* (butterfly knives) of Wing Chun. From the cartwheels of Afro-Brazilian *Capoeira* to the twisting steps of Chinese *Baguazhang* and from the leaps in Indian *Kalaripayattu* to the low stances of Mexican *Xilam*: There are ranges of movement in different planes; held for different periods and performed at different intensities – likewise trained at drills at varying degrees in certain spaces, time periods, culture milieu, pedagogical strategies, and so on. Martial arts, when broken down into their smaller components of steps, rolls, jumps, strikes, throws and falls, attack and defence, provide a plethora of manners of movement (techniques of the body) that could be employed as preventative strategies, warm-up drills, holistic therapies, for rehabilitation, mindfulness exercise and meditation-in-movement – as solo and interactive exercises and with the aid of objects. Rather than



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classifying the separate martial arts systems and styles themselves, researchers could attempt to understand the individual movements in the sense of their intensity, repetition, combination, variation and evolution in terms of their effects on human morphology, learning and subjective wellbeing. These techniques could be classified and examined on an individual stylistic basis, and understood in their relation to each other in an anatomic, technical and strategic sense, such as in the illustrative (but never definitive) list below:

- Kicks and punches;
- Palms and chops;
- Knees and elbows;
- Throws and takedowns;
- Locks and throws;
- Chokes and holds;
- Clinches and escapes;
- Jumps and flips;
- Blocks and parries;
- Pushes and pulls;
- Yields and absorptions;
- Steps and slips.

Ordinarily within martial arts schools and private tuition (and also through online courses), these techniques are practiced continually alone, in front of mirrors, with a partner facing them, through the use of cooperative partner drills, game-like activities and even organized competitions. This reflects the expansive manifestation of forms of body cultures in terms of structured exercise, esoteric and folk games and performance sport (Eichberg, 2008). This leaves room for a great deal of creativity, and stresses the ‘art’ component of the compound noun ‘martial art’ to show that is not an oxymoron. With the potential crisis of self-defence, civil unrest or other forms of violent encounters, as well as the use of martial arts techniques in the modern age of firearms and explosives, comes a potential creativity. Shilling (2008) has

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provided a succinct introduction to the modern philosophical tradition of pragmatism, which deals with three stages of human life and action: habit, crisis and creativity. These ways of stepping in martial arts, for example, have ‘evolved’ or adapted over time as a result of experimentation, theorization and direct fighting experience, as well as in response to concerns for health and safety in modern times of relative peace. The habit of hitting with boxing gloves might need to be adapted when techniques are mixed with grappling and clinches, and might be useful as a starting point for looking at health: not in terms of concussion and brain trauma (Jordan, 2000) or hand injuries and other ailments (Bledsoe, Li and Levy, 2005) that can result from combat sports training and competition, but the technique in its purest, most isolated sense. In this light, one could examine developments in a total state of health: physical (e.g. muscle tone, posture, reflexes, mobility, shoulder stability, core strength); mental (e.g. self-confidence, self-esteem, anxiety control); with social elements (e.g. group identity and communication skills with fellow teachers and learners).

With the worldwide popularity of boxing as a practice and form of entertainment, punches are perhaps the best understood of martial arts techniques. They are part of the larger category of striking, which include palms, chops and other combined uses of the hand. Punches can be performed to deliver strikes using the first two knuckles, the last three knuckles, and can also be delivered from the hips (as in Taekwondo and Karate), guard (as in boxing and kickboxing) shoulder-length guard (as in Thai boxing) or chest (as in Wing Chun), among other formats. They can be learned in slow motion, as often in Yang style and other forms of Taijiquan, or even explosively, as in the majority of martial arts and in Chen style Taijiquan, renowned for its ‘energy releases.’ This shows that a system has stylisations and schools that might involve debates of the path of a punch, the angle of the arms, the trajectory, the target areas and the

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modes of training the techniques. The ‘bridge’ can be long (extended and used offensively) or ‘short’ (bent and used defensively or cautiously), and the plane of movement can be straight, circular or spiral. Furthermore, punches can be practiced on human bodies, focus mitts and punch bags as well as filled wall bags – a myriad of methods to explore one movement, with the only limitation being artistic innovation that drives both martial arts and science.

### **Final words: A call for creative health research and pragmatic applications**

The world – that being the human view on the global population – requires innovative health interventions and research that deal with our potential as a species, both in a culturally-sensitive manner and in terms of philosophical anthropology. Strategies should be followed with caution by first acknowledging the limitations of each measure to deal with the ‘body problem’ (Frank, 1995) – or perhaps just the ‘problem’ – of health as embodied beings, to take a more integral understanding of humans and health beyond the body. The martial arts are no panacea to all forms of sickness (especially communicable ones), but might make meaningful contributions to physical activity interventions, physical recreation, holistic and mindfulness therapies as well as physical education for lifelong learning – all of which form the basis of multiple and interlacing body cultures to transform inactive to increasingly active physical culture, even if it just the exercise of the hands of the working on neck and shoulder alignment, which can deal with a range of ailments. We might benefit from consider a lesser-known part of World Health Organisation’s essential statement on health:

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- The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.
- Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people. (World Health Organisation)

So what of other global movements, such as the YMCA, for the members of which I am writing on this occasion? By looking at the achievements made in the last 173 years (as summarised in <http://www.ymca.org.uk/about/leadership/history>), established YMCA professionals and future practitioners could show innovation and courage seen in their predecessors who created aspects of physical culture or body cultures such as basketball and volleyball in Springfield College and Pongallo in Mexico: taking and modifying specific techniques of the body, such as jumping, throwing and blocking. This article has thus been a call for cautious experimentation and pragmatic artistic expression for thought experiments and conceptualisation, research design, practical implementation and evaluation. With the crisis of identifying martial arts within the broader context of movement cultures, come moments of rigorous research akin to martial training and artistic development that make up martial arts throughout the world and throughout history. This complexity shows the need for continued martial arts health research whether as ‘studies’ or as ‘science’: Both interdisciplinary in its inception and transdisciplinary in its application.

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**Atención consciente (mindfulness): una mirada crítica****Bárbara Ibinarriaga-Soltero<sup>2</sup>**

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### Resumen

Una de las aportaciones más significativas en los últimos años dentro de la psicología y otras disciplinas científicas ha sido la implementación de intervenciones basadas en la práctica de atención consciente o *mindfulness*. Gran parte de la literatura ha reportado la evidencia que apoya la eficacia de dichas intervenciones en diferentes escenarios, con un énfasis importante en los cambios producidos en la salud física y mental de los individuos y el incremento en su bienestar subjetivo. Sin embargo, una corriente emergente y desafiante a lo que se conoce como *Movimiento de Mindfulness* está cobrando mayor terreno en el ámbito científico de las ciencias sociales (ver por ejemplo Stanley, 2012). Discutir e integrar esta mirada crítica en el estudio y práctica de la atención consciente resulta fundamental no sólo a nivel internacional sino en el caso de México, ya que poca atención se ha llevado a la revisión de esta literatura. Esto conlleva consideraciones relevantes a nivel ontológico y epistemológico en relación a la

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conceptualización sobre el término atención consciente y a nivel metodológico, al re-considerar los métodos utilizados para investigar el tema.

**Palabras clave:** Mindfulness; Atención Consciente; Métodos Cualitativos; Atención Plena; McMIndfulness.

**Abstract**

The implementation of mindfulness based interventions is one of the most significant contributions within psychology and other scientific disciplines in recent years. An extensive amount of literature has presented evidence supporting the effectiveness of these interventions in different settings, with a particular emphasis on improvements in physical and mental health including increases in perceived subjective well-being. However, a wave grounded within the field of social sciences (for example see Stanley, 2012) is emerging and challenging what has been called the *Mindfulness Movement*. Little attention has been paid to the revision of this literature in Spanish speaking countries. Therefore, discussing and integrating this critical view in the study and practice of mindfulness is important, not only at an international level, but particularly in the case of Mexico. This discussion entails ontological and epistemological considerations with regards to the conceptualization of mindfulness itself (and the uses of the Spanish translation of the term '*atención plena*' and '*atención consciente*') and its benefits, and re-thinking the methodological choices made to investigate the subject.

**Keywords:** Mindfulness; Qualitative Methods; Critical Psychology, McMindfulness.

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### Introducción

Uno de los paradigmas que recientemente ha tenido gran influencia a nivel internacional en diferentes disciplinas científicas como la psicología clínica, medicina conductual y neurociencias es la práctica de atención consciente o *mindfulness* por su nombre en inglés. En países de habla hispana el término *mindfulness* ha tenido mayor influencia que las traducciones de este término al español: atención plena o atención consciente. Esto se debe por un lado a que el idioma en que se ha realizado gran parte de la investigación científica al respecto ha sido en inglés; lo cual probablemente también ha facilitado incluso el uso genérico e indiscriminado del término *mindfulness* (Bodhi, 2011). Debido a ello, el consenso que posiblemente existía sobre lo que significa este término se ha diluido considerablemente resultando en una línea de investigación en sí misma (ver por ejemplo Chiesa, 2013; Rupert, 2011). En el presente ensayo se considera que el término atención consciente da mayor crédito al significado de la práctica al señalar la relevancia del marco ético en la que dicha práctica se efectúa. Es decir, esta práctica no implica el entrenamiento *aislado* de la atención sino de la atención correcta, caracterizada por el cultivo de intenciones saludables y desarrollo de cualidades mentales positivas que permitan el desarrollo óptimo del bienestar del individuo y de quienes lo rodean (Purser & Loy, 2013). Así, se espera que el uso consistente del término atención consciente confiera un mayor entendimiento y cohesión al campo de estudio en sí.

La práctica de atención consciente implica algo más que la frase popular “estar en el momento presente” con la que comúnmente es asociada. Es una práctica de meditación que involucra atender de manera continua a un objeto, por ejemplo la respiración, sin olvido o distracción de manera no conceptual, es decir, sin etiquetar o categorizar dicha experiencia

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(Wallace & Bodhi, 2006). En este sentido, la práctica de atención consciente constituye un entrenamiento mental que supone inicialmente llevar la atención a cierta experiencia que ocurre en el momento presente y posteriormente, conlleva la capacidad de recordar dicho objeto de atención cuando nos distraemos, al reorientar nuestra atención al objeto y regresar a éste con una actitud particular, de aceptación y sin juicios. Diversas investigaciones científicas han estudiado el impacto que la práctica regular de atención consciente tiene en los individuos, y cómo este tipo de entrenamiento de la atención influye en distintos procesos tanto psicológicos y biológicos como de socialización (Brand, Holsboer-Trachsler, Naranjo & Schmidt, 2012; Brown & Ryan, 2003; Dekeyser, Raes, Leijssen, Leysen & Dewulf, 2008). Sin embargo, hasta el momento no se ha realizado una revisión en español de las perspectivas y disciplinas que abordan el tema de atención consciente y sus aplicaciones desde una mirada crítica. Por lo tanto, el propósito del ensayo es introducir de forma general dichas perspectivas y presentar estudios realizados en diferentes disciplinas de las ciencias sociales como respuesta a la brecha existente dentro del campo de investigación de la práctica de atención consciente y sus aplicaciones.

### **El Movimiento de 'Mindfulness': contexto global**

La historia de la práctica de atención consciente es milenaria, ya que su origen se remonta a más de 2,500 años en países de oriente; particularmente en las tradición Budista Theravada en el Sudeste de Asia, en la tradición Ch'an en China y en el Budismo Tibetano (Stanley, 2012). Sin embargo, constituye una práctica relativamente nueva en países de occidente pues su aplicación en ambientes hospitalarios comenzó a finales de 1970 (Cullen, 2011); además de

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que la investigación científica sobre la práctica de atención consciente y sus aplicaciones comenzó a crecer exponencialmente tan sólo en la última década (Figura 1).

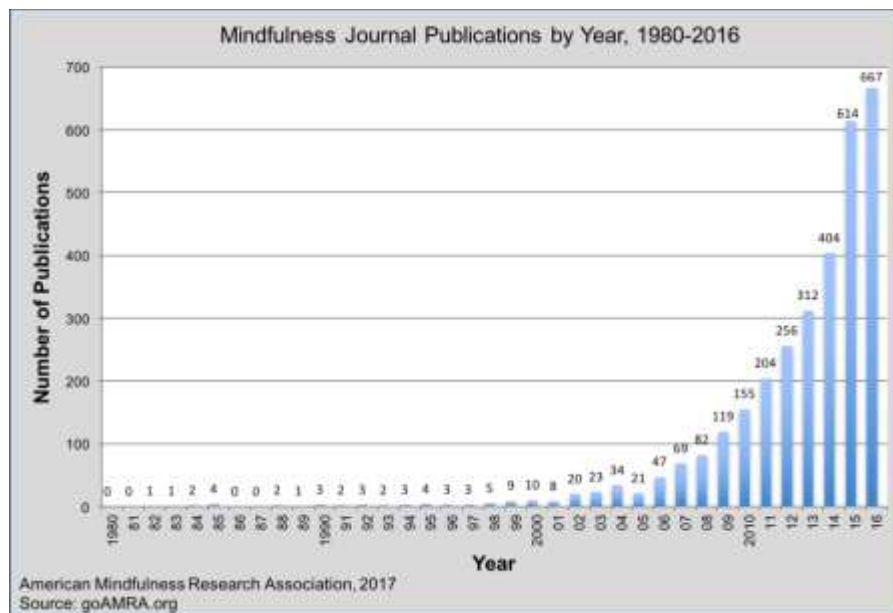


Figura 1. Publicaciones en revistas sobre Mindfulness por año, 1980-2016. La gráfica ilustra el número de investigaciones disponibles realizando la búsqueda del término *mindfulness* en los títulos de artículos de revistas académicas en el servicio *Web of Science* (Institute for Scientific Information, ISI). American Mindfulness Research Association. (2017a). *AMRA Database*. Recuperado Julio 24, 2017, de <https://goamra.org/resources/>

El aumento de las investigaciones sobre atención consciente muestra el gran interés de la comunidad científica al respecto así como la expansión de los tipos de escenarios en donde la práctica se ha implementado. De acuerdo con la clasificación temática de revisiones y meta-análisis realizada por la Asociación Americana de Investigación en Mindfulness (American Mindfulness Research Association, 2017b) la práctica de atención consciente ha sido estudiada en relación a diferentes temas de salud mental, tratamiento y cuidado clínico, procesos de inflamación y el sistema inmune; y en áreas como la pediatría, abuso de sustancias y adicciones sólo por mencionar algunas.



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Dos aspectos importantes de la popularización de la práctica de atención consciente ha sido la estandarización de protocolos de intervención e investigación basados en esta práctica (ver por ejemplo Kabat-Zinn, 1990; Santorelli, 2014; Segal, Williams & Teasdale, 2002) así como la diseminación de los amplios beneficios reportados en diversos escenarios; tanto clínicos y hospitalarios como educativos y laborales. Por ejemplo, la evidencia científica sugiere que la práctica de atención consciente reduce los niveles de estrés y ansiedad (Creswell, 2017), dolor crónico (Morone et al., 2016), la tasa de consumo de cigarrillos (Oikonomou, Arvanitis & Sokolove, 2016) y consumo de sustancias adictivas incluyendo alcohol y drogas (Witkiewitza, Bowen, Douglasc & Hsuc, 2013). A su vez, se ha reportado que la práctica de atención consciente promueve el desarrollo de habilidades emocionales y sociales en niños y adolescentes (Diamond & Lee, 2011; Sanger & Dorjee, 2015) y el aumento de la productividad y la satisfacción laboral en los trabajadores (Good et al., 2015). El uso de la evidencia científica acerca de los beneficios de la práctica de atención consciente se registra en su punto más álgido en Reino Unido, en donde se ha propuesto implementar políticas públicas para el empleo de intervenciones basadas en atención consciente en distintas áreas: salud, educación, ámbito laboral y el sistema de justicia criminal (Mindfulness All-Party Parliamentary Group, MAPPG, 2015). Así, el caso más notable hasta ahora en este contexto ha sido el uso de la Terapia Cognitiva basada en Atención Plena (Mindfulness-Based Cognitive Therapy, MBCT; en NICE, 2010) como tratamiento eficaz recomendado para la prevención de recaídas de depresión en el Sistema Nacional de Salud en Reino Unido.

La aplicación de la práctica de atención consciente como corriente principal en la psicología clínica, la medicina conductual y las neurociencias es considerada actualmente un fenómeno global (Stanley, 2016). Incluso, el uso de esta práctica se ha popularizado a través

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de los medios sociales como una panacea; es decir, la práctica de atención consciente como la solución a los problemas de la vida diaria (Purser, Forbes & Burke, 2016); fenómeno que ha sido denominado 'Movimiento de Mindfulness'.

La diseminación global y vertiginosa de la aplicación de la atención consciente ha generado una serie de preocupaciones y fuertes críticas desde el mismo campo de la investigación científica. Esto es, aunque la eficacia de algunos programas de intervención basados en atención consciente ha sido evaluada bajo diseños experimentales rigurosos (ver por ejemplo Williams et al., 2014) la literatura científica sobre el tema es aún joven en comparación con la publicidad y los aseveraciones generalizadas y carentes de crítica que se ha realizado en los medios sociales sobre los beneficios de la atención consciente en distintos escenarios. Claro ejemplo de esto son las debilidades metodológicas de algunos diseños de investigación (Purser et al., 2016; Stuart et al., 2016), la similitud de la eficacia de tratamientos tradicionales en comparación con las intervenciones basadas en atención consciente (Hughes, Fresco, Myerscough, van Dulmen, Carlson & Josephson, 2013), y la poca atención se ha dado a investigar los posibles efectos negativos o adversos de la práctica (Lindahl, Fisher, Cooper, Rosen & Britton, 2017).

En relación al tema de salud dos ejemplos son evidentes. En primer lugar, la asociación que se hace de la práctica de atención consciente con un estilo de vida particular en donde los libros de auto-ayuda basados en dicha práctica junto el ejercicio y/o la práctica de dietas conforman parte de lo que parece un kit de técnicas esenciales para el cuidado de la salud física y mental, que tienen como fin último reducir o "curar" los niveles de estrés y ansiedad que experimentan los individuos. De acuerdo con Barker (2014), esto forma parte de la 'medicalización' de la vida diaria; es decir, un proceso en el que la práctica de atención

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consciente es entendida como una intervención médica en sí para tratar problemáticas de salud como lo son en este caso el estrés y la ansiedad.

En segundo lugar, se encuentra el área de bienestar subjetivo y felicidad de los individuos, en donde la evidencia científica sobre el impacto de la práctica de atención consciente ha sido incorporada en el campo y los objetivos de la psicología positiva (Cebolla, Enrique, Alvear, Soler & García-Campayo, 2017). Es así que el incremento del bienestar subjetivo, el nivel de satisfacción de la vida (Keng, Smoski & Robins, 2011), y el desarrollo de emociones positivas como la empatía (Tan, Lo & Macrae, 2014) a partir de la práctica de atención consciente han sido conceptualizadas como indicadores del nivel de felicidad de los individuos. Esto ha dado como resultado el surgimiento del área de investigación “ciencias de la felicidad” (Keener, 2013 Septiembre 01). Aunque es un área con estatus académico, la comercialización de las técnicas utilizadas para desarrollar dichas potencialidades positivas humanas y el uso de la evidencia científica para tales fines han sido fuertemente criticadas. Esta forma de diseminación y aplicación de la atención consciente se le conoce como “McMindfulness”, en donde se observa que la secularización y estandarización de la práctica de atención consciente para hacerla más aceptable en distintos escenarios como el mundo corporativo implica riesgos importantes como la descontextualización del propósito original de la práctica, de liberación y transformación del individuo en el contexto general del Budismo, así como la pérdida de su fundamento en la ética social (Purser & Loy, 2013).

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### **Hacia una mirada crítica: atención consciente y sus aplicaciones**

Si bien es cierto que actualmente presenciamos el desarrollo y las aplicaciones de la atención consciente como un movimiento global; es decir, ya no sólo enraizado en países de oriente sino también en occidente, es importante reconocer que el entendimiento que se tiene hasta ahora al respecto aún es limitado. Prueba de ello es la ola de investigaciones que se han comenzado a realizar recientemente dentro de las ciencias sociales (Stanley & Longden, 2016); en particular, el interés en los aspectos sociales, culturales y contextuales de la práctica de atención consciente en sí y de sus distintas aplicaciones.

Esto en sí mismo puede ser considerado un fenómeno particular puesto que ha implicado un cambio en la perspectiva epistemológica sobre las formas en las que podemos acceder al conocimiento, que en este caso se refiere al tipo de efectos de la práctica de atención consciente; así como el cuestionamiento ontológico sobre lo que es o no la práctica y aquello que constituye los efectos de ésta (Stanley, 2012).

Investigaciones en este sentido se han enfocado en el estudio de los procesos de enseñanza de intervenciones basadas en atención consciente (Por ejemplo MBSR y MBCT en Crane, Stanley, Rooney, Bartley, Cooper & Mardula, 2015), el uso de la práctica de mindfulness como un método de investigación psicosocial (Stanley, Barker, Edwards & McEwen, 2014), y las implicaciones de la práctica en relación a las posibles diferencias de género (Rojiani, Santoyo, Rahrig, Roth & Britton, 2017) y la integración de esta práctica como una pedagogía anti-opresiva en el salón de clases (Berila, 2015).

A su vez, el estudio de la atención consciente desde este ámbito interdisciplinario ha permitido que se utilicen diferentes tipos de métodos de investigación cualitativa más allá de

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los métodos cuantitativos tradicionales (escalas psicológicas, mediciones fisiológicas y/o registros neuronales). Por ejemplo, se ha utilizado el método de entrevista micro-fenomenológica con el propósito de estudiar los procesos de tomar consciencia que los practicantes experimentan durante la práctica de meditación como lo es la atención consciente (Bitbol & Petitmengin, 2017; Petitmengin, van Beek, Bitbol, Nissou & Roepstorff, 2017); métodos etnográficos como observación participante para estudiar la experiencia intersubjetiva en retiros de meditación (Pagis, 2010), y análisis de conversación aplicado para estudiar la enseñanza de intervenciones basadas en atención consciente (Crane et al., 2015).

El uso de diferentes metodologías ha implicado un cambio radical en el estudio de la práctica de atención consciente, ya que ha permitido encaminar la mirada crítica del movimiento de mindfulness al estudio de factores que resultan imprescindibles para el completo entendimiento de la conducta y vida humana, los cuales se centran en los procesos sociales y contextos culturales y políticos en los que se implementan las intervenciones basadas en atención consciente. Es decir, se ha expandido la conceptualización de la atención consciente como una técnica o herramienta individualizada para producir cambios y beneficios personales a la consideración de cómo esta práctica está social y culturalmente influenciada (Stanley, 2012).

## Conclusiones

El Movimiento de *Mindfulness* podría considerarse un fenómeno bastante joven debido a que el incremento de las publicaciones académicas comenzó tan sólo a finales del siglo XX. Sin embargo, la diseminación de la evidencia científica y su aplicación en distintos escenarios

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ha sido descrita como una revolución debido a la naturaleza de su expansión a nivel internacional y su proliferación no sólo en el mundo académico en áreas como la psicología clínica, medicina conductual y neurociencias, sino en los medios sociales y en la vida cotidiana.

Este fenómeno ha traído como consecuencia el interés y la mirada crítica de investigadores de otras disciplinas dentro de las ciencias sociales; quienes enfatizan la necesidad de estudiar los aspectos sociales, culturales e históricos asociados al contexto en el que las intervenciones basadas en atención consciente son implementadas; apuntando claramente a re-pensar la práctica de atención consciente no sólo como un “estado mental interno” que es posible entrenar o cultivar sino como una “práctica social-pública” (Stanley, 2012, p.631).

Aunque esta mirada crítica está tomando mayor fuerza a nivel internacional, el trabajo en esta línea de investigación es aún escaso en lo que respecta al contexto Mexicano. Por tal motivo, una de las razones fundamentales del bosquejo realizado en el presente ensayo es reflexionar sobre cómo se está llevando a cabo la investigación en México respecto a las intervenciones basadas en atención consciente, y en particular hacer una invitación para aplicar esta mirada crítica durante la aplicación de la práctica de atención consciente en los distintos escenarios, así como durante el proceso mismo de investigación.

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Williams, J.M., Crane C., Barnhofer, T., Brennan, K., Duggan, D.S., Fennell.,M.J., ... Russell, I.T. (2014). Mindfulness-based cognitive therapy for preventing relapse in recurrent depression: A randomized dismantling trial. *Journal of Consulting and Clinical Psychology, 82*, 275–286.

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## **Sharing experiences**

**Sueños que se Realizan – Viviendo en México****Monique Camargo**

Soy Monique Kathleen Soares de Camargo, tengo 19 años y soy estudiante del curso de Educación Física en la FEFISO Sorocaba. En mi vida siempre tuve dos grandes sueños, y en 2016 uno de ellos se realizó y el otro camino para concretarse en 2017. Todo iniciando a partir del primer sueño, el cual desencadenó el segundo e por consecuencia abriendo nuevas puertas, nuevos horizontes, permitiéndome crecer personalmente, profesionalmente y adquirí el empoderamiento.

El primer sueño era cursar Educación Física en la FEFISO, lo cual se concretó en enero de 2016 después de la aprobación en la selección, así cada día la total certeza de mi elección y apasionándome más por mi área, por los profesores, por la facultad. El segundo sueño era el de realizar un intercambio y en mayo de 2016 en la JIEF realizada por la FEFISO, yo descubrí que estaban haciendo las inscripciones para el programa #ÉPRALÁQUEEUVOU, el cual es todo un proceso para la selección de una persona para representar a FEFISO en otro país, pudiendo ser para estudio o trabajo. Y fue a partir de ahí que pude percibir el inicio de la búsqueda de mi segundo sueño. Después de la inscripción, hubieron varios encuentros, un total de siete, que hablaban al respecto de lo que viene a ser el proceso, los países, las acciones, personalidades, o sea, el papel en la facultad desde el primer día que se entra al



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proceso y la autonomía para ser una persona representante en otro país. El último encuentro, fue el más marcante, que fue el campamento, en que fue posible la percepción de crecimiento de todos y la visión de que todos los que estábamos ahí presentes estaban preparados para ser los seleccionados. Y a partir de ese día pude mirar para mí misma y decir, “yo soy yo misma en todos los momentos”.

Ese proceso duro de mayo a octubre, que fue el mes de la pregunta de Massari (director de la facultad) y Jorge (coordinador y maestro del proceso) para mí: “Monique te gustaría pasar dos meses estudiando en México?” Y sin ninguna duda dice si, al principio me quede sin reacción, lo que estaba aconteciendo era verdad, todavía más que mi amiga Vitoria fue seleccionada también, o sea, juntas para México durante dos meses. A partir de eso, dimos inicio a los preparativos: pasaporte, seguro de viaje, maletas, ropas, búsquedas sobre el país y la cultura, y la cuenta para el día dos de febrero, más para que esos dos meses jamás pudiesen acabar.

El segundo sueño tuvo su inicio en el día dos de febrero del 2017, cuando me despedí de mis papas y de mi hermana y pude entrar en el avión y decir para mí misma “si, esto está pasando conmigo, y voy estar dos meses en México, Gracias mi Dios”. Este viaje se resume en primera vez: viajar de avión, ir para fuera del país, estar lejos de mi familia, estudiar en otra universidad, hablar otro idioma 24 horas por día, conocer otra cultura, vivir con otra familia, diferente horario, clima diferente, pasar mi cumpleaños en otro país, adquirir nuevas amistades,.... Permitirse los momentos.

Esos meses que viví en México fue una gran conquista, o sea, 59 días siendo una típica mexicana y disfrutando de esa maravillosa cultura. En la universidad YMCA – México, estude Ciencias del Deporte y tuve 6 materias, siendo ellas: Kinesiología, Morfología I,

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Morfología II, Psicología del desarrollo, Deportes de Conjunto I, y Antropología Filosófica, habiendo tres materias médicas y todas siendo bien profundas en la parte científica y cada materia yo hacía por un cuatrimestre, entonces siempre estaba mudando de salón y de piso.

Las clases eran de las 7h a la 1h, sin tener descansos, y mi horario era completo de martes a jueves, en el viernes tenía libre de las 9h a las 11h y el lunes era día de ir hasta Mallorca que es una sede solamente para las clases prácticas, y allá solo hacía Deportes de Conjunto I, de las 7h a las 9h. Cada clase duraba dos horas y cuando tenía clases libres yo hacía otra, por ejemplo los lunes yo hacía danza en el octavo cuatrimestre, allá se tiene cuatrimestres por año, por eso en las clases los profesores pasan el máximo de materia posible y trabajos, yo por ejemplo tenía trabajos todos los días, siendo realizados como un proyecto y todas las materias son dos veces en la semana. Con los alumnos y profesores aplique mi parte práctica de la iniciación científica sobre la Tecnología-Educación y fue muy bueno los resultados obtenidos. Presente tres trabajos: sobre la articulación glenohumeral, sobre los filamentos deslizantes y sobre la evolución de la tecnología, y exigen la utilización de ropa formal para la presentación. Después de las aulas, buscamos vivencias cada momento como: porristas, alberca, gimnasio, museos, palestras, puntos turísticos, así conociendo siempre algo típico de la cultura y aprovechando cada momento, llegábamos a casa prácticamente solo para dormir. Nos levantábamos bien temprano debido a veces tener tránsito, levantábamos a las 5h y salíamos a las 6h, dependía del tráfico la llegada en la universidad, variaba mucho, sin decir del cambio climático que me asustó mucho, que en la parte de la mañana era frío tremendo, que llegaba hasta doler y cuando daba el medio día comenzaba a hacer calor y en la noche frío nuevamente.

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Eses dos meses que estube en México, fue acogida por la familia anfitriona Mondragón Bustamante, donde vivíamos Yo, Eduardo, Margarita, tres perros y Vitória. Hacían todo por nosotras, presente en todo lo tiempo, desde lo despertar, lo preparo de la comida, los paseos, conocer las cosas típicas, saber un poco sobre la historia, sobre México, ate la parte de conocer toda la familia.

Procure cada momento ser una típica mexicana, profundizando en cada aspecto de la cultura y de la práctica cotidiana que realizaban. Mi alimentación, fue así como mi familia anfitriona que no tienes un horario cierto para alimentarse, es cuando se tiene hambre, despertábamos y desayunábamos, que es como nuestra comida, por ejemplo: huevo con queso y verduras, fruta, pan, frijol y jugo de naranja. Tardaba para tener hambre, entonces me alimentaba de nuevo por eso de las 4h, en México no es común repite la alimentación y comen mucha masa, ejemplo: quesadillas, tamal, sopes y tacos. Y después solo comía nuevamente cuando eran las 10h. Experimente todos los tipos de comidas y bebidas mexicanas, e debo resaltar el nopal, que es el cactus, que se come y es muy bueno; Oblea, que es un dulce que parece una hostia más con miel y nueces; las aguas con sabores, que es como suco con agua para nosotros; el uso de chile en todo desde pequeños se come y existe hasta el chile dulce; utilización de aguacate como salgado y no dulce; los tamales, que como existen varios tipos de maíz de diversos colores, parecen con la pamonha nuestra; atole de varios sabores, como si fuese un mingau para nosotros.

Estando como mexicana, pude andar en metro, camión, combi, y ver que es un país muy acelerado y como existen muchas personas, es posible observar la visión de la mujer que el país tiene, separando para no haber contacto, como en el metro las mujeres poseen un vagón solo para ellas y en el camión existen asientos rosas solo para las mujeres. También pude tener

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la oportunidad de conocer diversos puntos turísticos, dando atención para: Nevado de Toluca, que es un volcán; Pirámides de Teotihuacan, que son tres y cuentan toda la historia de los primeros pueblos; Campamento de líderes en Ajusco, donde hicimos senderismo, diversas actividades, fogata, bombones en la fogata, dormimos en tiendas de campar y en la noche helo; Playas, que poseen un agua cristalina y casi todas tienen la libertad de ir sin ropa, siendo una visión diferente del cuerpo; Punta cometa, que es la punta más distante en el Océano Pacífico y es maravilloso ver la puesta de sol; Castillo de Chapultepec que cuenta la historia de la batalla contra Francia y es posible imaginarse en aquella época; Mariachis, son bandas que tocan en la plaza de Garibaldi; Torre Latinoamericana, que es posible tener una visión de valle de México; Basílica de Guadalupe, que es posible conocer la religión católica aliada con la espiritista y las diversas sensaciones en estar en aquel momento; UNAM, universidad inmensa, pude asistir a una exposición sobre el cerebro; Escuelas, poder percibir la división educacional bien diferente y la no existencia de la Educación Física en la preparatoria, apenas un pasatiempo en el descanso; Zócalo, que es el centro histórico, con la Catedral, el Monumento a la Revolución; Museo de Frida, Soumaya, de Cera, de la Tortuga, Cosmovital, de la Mujer donde asistí a una palestra de respeto; Comité Olímpico Mexicano, donde pude asistir a los entrenamientos de los atletas y conocer toda la historia de México en juegos Olímpicos; Trajineras, que es como un paseo en barco con música; Paseo de Barco en la playa donde vimos una familia de ballenas, delfines, tortugas e inmersiones viendo los corales... Son tantos momentos que esos son apenas algunos.

Las calles son bien diferentes, por que como es bien movida, existen muchos puentes y funciona de la siguiente forma, si usted quiere llegar más rápido en el destino deseado usted

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paga para ir por la vía de arriba, así como un sin parar en las casetas, existe la opción de pagar en la hora, de pasar con un sin parar o de tomar un boleto y pagar en la próxima caseta.

En las primeras semanas estuve enferma debido a toda la diferencia y mi cuerpo ha tenido algunas reacciones malas, que es normal debido a este cambio, pero en algunos días ya estaba mejor.

Y llego el día dos de abril, de una forma bien rápida a punto que yo corría contra el reloj, porque en verdad yo llegue pensar que el día dos de abril no llegaría. Pero el momento de la despedida, del agradecimiento, del llanto, de la sensación de querer quedarme... Todo eso llego, y pude hablar para mí misma, “voy a regresar aquí”, y fue más que una viajen, todo como se yo ja tibes vivido aquella momento y conozca a todos.

Ahora evaluando todo lo que viví, que fue tan rápido, puedo percibir y decir que esa vivencia de dos meses en México, pude adquirir la experiencia de permitirme sin miedo de los nuevos desafíos y adquirir el total conocimiento a todo instante, yendo en busca de estudio en una universidad internacional y además, el conocimiento de una otra cultura. Puedo decir con total certeza, que la adaptación que tuve fue muy buena, que en cuatro días ya conseguía entender el idioma y la pronunciación fue mejorando poco a poco, por ende todos me entendían. Entendí y comprendí todas las clases, a punto de que mis anotaciones en el cuaderno de portugués pasaron a ser en español, de la primera prueba respondí todo en portugués, la segunda ya fue todo en español, ha y sobre mi escritura muchos no entendían mi letra, debido a que la mayoría de las personas utilizan letra de forma.

Puedo intentar explicar, mostrar fotos, contar todos los acontecimientos... Escribir ahora mismo cinco páginas, mas no tengo como explicar lo que fueron esos dos meses que pase en México, porque de la misma forma que fue solo un sueño realizado, parece hasta que fue un

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sueño que tuve y después desperté. Puedo si con toda certeza decir, que mis sueños se realizaron, todo eso gracias a Dios, mis papas que siempre teneran los mismo sueños conmigo y a través de la oportunidad que la FEFISO me proporciono, cursar Educación Física y pasar dos meses en México, donde soy muy agradecida a la familia que me acogió y estebe presente en todo los dos meses disfrutando cada momento, donde pude adquirí nuevas experiencias, nuevos conocimientos, permitirme sin miedo de los nuevos desafíos, agarrar las oportunidades, aprovechar cada momento porque él es único, no dejar nada para después, un crecimiento personal, empoderamiento, crecimiento profesional y una nueva perspectiva de que nuevas puertas se abrirán a través de la fe y de mi dedicación. Solo vivenciando y sintiendo para saber una emoción de agradecimiento de pasar dos meses en México. Una experiencia única e inolvidable, que llevare siempre en mi memoria y en mi vida profesional.

#ÉPRALÁQUEEU FUI-MÉXICOYMCA

Monique Camargo

**FEFISO/UNIYMCA****Vitória Salmazo**

My name is Vitória Rodrigues Salmazo, I'm 20 years old and I'm studying Physical Education at FEFISO - Brazil.

Here we have a program to select some people to go on an exchange. I decided to get in the program because it's an incredible experience to my personal and professional life. Traveling and knowing another country is my dream since I was fourteen years old. The process lasted five months with meetings and after the teacher's opinion, in October 10<sup>th</sup> 2016, Mauricio Massari (our principal) and his assistants, Jorge Arcanjo and Valentim, came to our classroom and told us that a friend, Monique Camargo, and I were selected to go studying two months in Universidad YMCA – México, also known as UNIYMCA.

I stayed there for sixty days, February and March in 2017, studying "Ciencias del Deporte" (sports science). In Brazil my university term is by semester (a period has six months) but in Mexico a period has four months, so the subjects are taught much faster and more intensive than in Brazil. As I studied sports science and not physical education, I could notice that the university is more scientific. It's because in Brazil, to study body, movement and health we study only Physical Education, but in Mexico there are a lot of college courses to study that,

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such as: Sports Science, Movement Science, Health, Sports Coaching... And, normally, students who take Physical Education are those who want to work in school with children.

I had subjects from different periods of college to be equivalent to my subjects in FEFISO, and that was so good because I could know a lot of people. My classes were from 7am to 1pm, Monday to Friday. My first week was so difficult because I'd never studied Spanish before and I arrived in a test week, but after seven days it was already possible to talk and understand it very well.

The people from UNIYMCA are so lovely and hospitable, already on my first day several people stopped me to ask if I was one of the Brazilians and they wanted to know how Brazil is, how the college is, words in Portuguese and things like that. Our principal (maestro Francisco Trujillo) gave us all the necessary support and we also had the pleasure to know Juan Baqué, the dean of UNIYMCA. The teachers are very attentive, they helped us sending e-mails, asking if there was any doubt, explaining again, but they always treated us as regular UNIYMCA students, what was so good and provided greater learning.

I made a lot of friends to whom I talk until nowadays. In the college there's a room called "relaciones publicas" (publics relations), where people go to have information about the university, and the woman who works there, Lorena, was a very good friend, so every day we stayed in this room talking to her and our friends, it was so cool and I miss everyone!

The YMCA from Mexico City has three units, next to the university there is the unit Ejército. It is so big and we could use the gym, pools, the fitness activities, nutritionist, doctor and also participate in the training of cheerleaders. Another unit is the unit Sur, which is the smallest. The biggest one is Mallorca and every Monday all the students from Ciencias del Deporte didn't go to the college, but to Mallorca instead to have just practical classes.



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Mallorca is a so beautiful space; on my first day there they had to limit the space of the students because a part had been rented to record a soap opera. There is a special swimming pool for ornamental jumps, several courts to practice squash and frontón (activities from Mexico), soccer field, and bigger spaces.

I had a subject called “evaluación del desempeño” (performance evaluation) and the way to evaluate we learned in classroom, we had to apply with children from an orphanage, called CID. Each group went once a week to apply sports activities to these children and evaluate them at the beginning of the period, before starting activities and at the end of the period, after four months of activity, and it was necessary to compare the results, but when my group was going to compare, I had already come to Brazil. My group used to go every Monday and we applied activities about velocity, it was so special to work with these children and I could teach some Brazilians activities.

Another similar experience was when a teacher from UNIYMCA, who is graduated in physical education, invited Monique and I to go to the school where she teaches to speak about Brazil, show pictures and teach a class with Brazilian activities to her students. It was so cool, we taught the class using the activity “Elefantinho Colorido”, “A História da Serpente” and talked a lot about the Brazilian food, places and habits. The children were so excited and interested to know about Brazil.

In Brazil I’m a dance teacher (ballet, jazz and tap), so I took the opportunity to join dance classes in some of the gyms/dancing schools near where I lived, but I just took ballet and jazz classes, because tap in Mexico isn’t very well known. The eighth period in the college has the subject “dance”, so when I realized it about tap dance, I talked to the teacher of this subject that in Brazil tap dancing is so popular, then she invited me to give teach a tap class to her

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students. So, after a week preparing, on my last Monday in Mallorca, I taught two tap classes for these groups, it was so magical for me, be able to teach in another country, in another language and still the modality that I love the most!

I lived with an amazing family, Mondragon Bustamante family. In our home lived Monique (the other Brazilian girl), my mother (Margarita), my brother (Eduardo) and I, but the other brother and sister (Karina and Efrén) lived near us and always went to our home. They were a real family for me, I really felt myself at home. My brother provided us with many things, and many of the tours we did, we owe him. He is really very very special for me!

I could know a lot of amazing places that I've never thought before! For example: a volcano, a castle, we traveled fourteen hours to another state to go to a beach, we knew the whole city center (also called Zócalo), we watched the fun "lucha libre", the trajineiras, the latin-american tower, the pyramids of Teotihuacan, museums and nice places that I still can't believe.

For me, the main difference was the food! In Brazil we usually eat little, but several times a day, like six times a day at certain time, and we also have something fixed that we eat every day, like rice and beans at lunch, we eat that every day. In Mexico it isn't like that, there isn't a time to eat, you can eat when you want, there isn't a time that everyone stops to eat, as lunch in Brazil, you can eat what you want and in the time you want, so normally people eat a lot and a few times a day, it was so different for me! But the food is delicious, greasier than the Brazilian food, but delicious. They eat a lot a dough called "tortilla" that is made of corn and it is possible to make several typical dishes with it. What we most ate was street food, what is so common there. In every street there are like trailers, but fixed, where they sell very cheap food!

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It is very difficult to summarize everything I have lived in two months, in words. But I hope I got through a little bit of what I felt there. It was my first plane trip, international and without my family, so it was very special for me and I have a great affection and gratitude for everything I lived and for everyone I met. I could mature personally and professionally. Mexico has a piece of my heart and I will be eternally grateful to FEFISO and my directors for giving me this.

**ANNOUNCEMENT FOR THE NINTH EDITION****“YMCA AND CHRISTIANITY”**

We welcome articles, essays, sharing experiences,  
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