Experiences and expectations in physical activity practices of people with Anorexia Nervosa

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Resumo: Através de um estudo exploratório descritivo de cunho qualitativo, foram investigadas as experiências motoras em pessoas com anorexia nervosa, explorando seus motivos, suas expectativas, sua relação com o exercício no curso do transtorno e o papel do professor de educação física. Os dados reforçam a necessidade de proporcionar um ambiente seguro, de respeito às individualidades e auxílio no reconhecimento dos limites e sensações corporais em propostas de atividades físicas para pessoas com anorexia nervosa.
Palavras-chave: Anorexia nervosa. Atividade motora. Terapia por exercício

1 INTRODUCTION

Anorexia Nervosa (AN) is an eating disorder characterized by significant weight loss, amenorrhea (for women), and disturbance in the way to experience the weight or the shape of the body. Family, psychological, socio-cultural and physiological factors interact in a complex way to predispose, precipitate and/or maintain the disorder. AN can be understood under the aspect of body experience, as a possible expression of a body marked by the incompleteness of their physical limits. The continually suffered invasion or the lack of empathy that cannot be said with words get written in the body. The refusal of food and weight loss that marks the body is what you can see of this anguish, which draws attention (CAMPANA, 2007).

Each day, people with AN experience a morbid fear of gaining weight and experiencing a great need for control over the weight and shape of the body. Self

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imposed limited diets, use of laxatives, diuretics and vomiting induced strategies are used to maintain the weight, the body and fear under control. Physical activity can also be, for many people with NA, of these strategies, methods to lose and control weight (ASSUNÇÃO; CORD; ARAÚJO, 2002). The exercises are often practiced in a ritualized and excessive, mandatory way. The objective is often to achieve an ideal body, consistent with the standards of beauty, leaving aside the internal sensations. The exhaustive exercises are conducted in order to "burn" the few calories that they may ingest. This dependence on exercise is described by Assunção, Cordás and Araújo (2002) as a secondary part of eating disorders, having loss/weight control as the only goal.

With the aim inhibit the use of excessive exercise as a strategy of weight loss of patients, restricting physical activity throughout the course of the disorder became a clinical decision applicant and several studies reiterated this practice. (Davis et al, 1994, 1997; HECHLER et al., 2005). Parallel to the restriction of the practice of physical exercises for people with eating disorders, positive effects of physical activity in the course of treatment of these disorders were discovered.

Researchers who studied the issue of physical activity in people with eating disorders, developed methods and means of specific training (Thien et al, 2000; BEUMONT et al, 1994) and found benefits of supervised practice of physical activities both in the physiological field of physical capacity (TOKUMURA et al, 2003; TOUYZ et al, 1984), and in relation to emotional and social aspects (CARRARO et al, 1998).

We found, then, two aspects of the relationship of physical activity and eating disorders: the excessive and uncontrolled circulation of people with any Eating Disorder (ED) as a method to lose weight and possible intervention with supervised activities, not always by physical education teachers along with the clinical care.

In our Brazilian reality, the nature of the relationship between exercise and ED is still unclear. In the three big Brazilian public treatment centers, the Ambulim at USP, the Proata at UNIFESP and the Clinic of eating disorders at Unicamp, there are professionals in physical education among their researchers, but the inclusion of exercise in the dynamics of treatment is still a path to be traveled. In this context, it is important to investigate the relationship between exercise and physical activity in ED is established in Brazil.

To start filling this gap, this research aimed to determine among patients with anorexia nervosa attending the Clinic of eating disorders at Unicamp (1) the reasons determine whether or not to like physical activity and (2) what the current expectations of this population are about the physical activity practice.

2 METHODOLOGY

This is a descriptive study of exploratory type.

The exploratory study is characterized by the approximation to a given problem that has not been deeply explored. Gil (1989) observed that exploratory studies provide a familiarity with the problem, making it more explicit, thereby facilitating the improvement of ideas or the discovery of intuitions, with a rather flexible planning, thus covering the most varied aspects of the studied fact.

This study was approved by the Research Ethics Committee of the Faculdade de Ciências Médicas of Universidade Estadual de Campinas (opinion number 564/2006).

2.1 ANALYSIS

In the descriptive study context, the objective is to describe the characteristics of a particular group of people or a phenomenon, aiming to identify the profile of this group, the relationship between variables or devise a new approach to the phenomenon (Gil, 1989).

From this perspective, the analysis focuses on describing the answers to the questionnaire, adding the similarities, differences and pointing singularities. In addition to the description of the reality of the group, it was tried to establish relations with the situation of this group against the findings of the literature.

2.2 SUBJECTS

Eight patients of the Eating Disorders Clinic of Hospital de Clínicas (HC) of Unicamp participated in the study and were diagnosed with anorexia nervosa, according to criteria of DSM-IV. All volunteers were female and their ages ranged between 15 and 30 years old. It is worth to say that during the study period, the Clinic served 9 cases of anorexia nervosa: the patient who did not participate in the research

did so for being hospitalized at the time of the study, one of the exclusion criteria originally planned. All other patients were in outpatient treatment and were monitored weekly by the multidisciplinary team of the clinic.

2.3 INSTRUMENTS

Questionnaire of motor experience: prepared especially for this study, the questionnaire is divided into two parts consisting of open and closed questions. The first part focused on motor experience - street plays, school physical education, sports practice - before the onset of the NA. In part, the volunteers could describe what they practiced and felt when they exercised, after a diagnosed eating disorder. It was also questioned about the use of exercises as a method of controlling weight and current expectations about physical activity.

2.4 PROCEDURES

The questionnaire was subjected to trial by two professionals, who worked independently from each other. One was a university professor and physiatrist graduated in psychoanalysis. The other was a physical education professional, specialized in the prescription of physical activity in health promotion. The researchers discussed the considerations that the professionals have made to the instrument and the ones considered relevant were followed.

Then, the questionnaire was submitted to a pilot study. It was preferred to use the projective technique of third person, preserving the target population. This is a method in which the respondent is asked why a person did something or what that person thinks of a particular subject. It is expected that the respondent transfers their attitudes to this third person - in this case, women with anorexia nervosa (ZIKMAND, 2006). After being rejected by ten healthy female people, of the same age as the population of the final instrument, the questionnaire proved to be appropriate, not requiring additional adjustments.

Data collection was conducted by the principal investigator and performed at the Psychiatric Clinic of the HC - Unicamp, during the months of April and May/2007.

Initially all participants signed a written informed consent, as well as the leaders of voluntary minors. Each volunteer took the time to complete the questionnaire individually, accompanied by the researcher. This did not interfere in the process of completing the answer. The underage volunteers answered the questionnaire

unaccompanied by their parents, only in the presence of the researcher. All of them completed the questionnaire in a more preserved place to ensure their comfort and the confidentiality of their answers.

3 ANALYSIS OF RESULTS

We sought to establish a new look at the relationship between physical activity and anorexia nervosa based on the interest and feelings of patients, a phenomenon that cannot be described by numbers. For a description of the information, four major groups of answer organization were created: (1) adherence to physical exercise, (2) relationships between AN and the practice of physical exercise, (3) influences of the physical education professional and (4) current expectations about the exercise. Some words of the respondents were inserted, only in order to illustrate the described scenario.

3.1 ADHERENCE TO PHYSICAL EXERCISES

When thinking of a time preceding the eating disorder, many volunteers mentioned by free will their children's games, experiments involving an action for more people (e.g. hide-and-seek, tag, etc.). There was now a unanimity regarding these games, they were appreciated by some respondents and not by others. Furthermore, the symbolic games were also mentioned, and were only between the preferred activities of respondents.

The activities of physical education classes, the collective sports games also appeared as activities appreciated by some respondents but not by others. However, there was a preference for gymnastics and stretching. In the gym or club, individual activities such as weight lifting and race also divided preferences, with some respondents liking and others rejecting the practice. In this category, activities such as sit-ups and located gymnastics were appreciated by all of them. Rhythmic activities (dancing, gymnastics etc.) also appeared only as preferred activities.

At the moment to justify the reason to not liking certain activities, it was noted that the not knowing how to play/do, or the supposed lack of ability in relation to the others were an important point in many statements, especially in relation to collectives sports/games:

> I was not fond of court sports with balls because I never was my cup of tea and the other kids were smarter, I was afraid, there was a lot of people, it is very rough. (02)
>
> I was not fond of volleyball because I have no skills with the ball. (07)
>
> I was not fond of basketball because I could not play it. (08)

So it seems there is a reluctance to engage in activities where there is a feature which refer to performance, competition and comparison with others. Collective sports/games may, in some ways, show both the skills and individual errors. Some authors describe perfectionism as a remarkable characteristic of the personality of people with Anorexia Nervosa. (MORGAN, Vecchiatti; NEGRÃO, 2002; ABREU; CANGELLI, 2004). Thus, the negative exposure to this type of activity may not be pleasant to some people with NA.

Another big group of reasons refers to sensations and feelings. Shame, lack of affinity, frustration, obligation to do and fear were words used to describe experiences they classified as bad: "[...] I did not enjoy activities such as volleyball, basketball, weight lifting, because, somehow, I was ashamed of having no affinity with them". (01)

Regarding favorite activities, it was observed that the exercises, plays and sports they could experience in a safe, reliable environment were good. This environment does not necessarily have to be enjoyed in private, but it seems that a group of receptive friends also builds a supportive environment: "I like to swim in the grandmother's pool, because I could swim the as much as I liked, by myself, without competing with anyone"(02)[...]" I liked dodgeball, because I could play it with all my friends"(07)

An experience could be appreciated when offered a sense of welfare. "Feeling good" is not very clear, but it is something like "[...] staying calm, balanced "(01). However, it is worth the attention to a feature identified in the responses: When referring to the present time, tranquility comes from both, a feeling of inner harmony and a feeling of being wasting energy and controlling weight. If, at first sight, the patients relate the exercise to a practice that take them off the dynamics of the disease, in an ambivalent motion, the physical exercise becomes a way of managing body to achieve and maintain thinness. This relation refers to the next category.

3.2 RELATIONS BETWEEN AN AND PRACTICE OF PHYSICAL EXERCISE

With the onset of the disorder, the relationship with physical activity became ambiguous in many reports. With the eating disorder in progress, doing exercises to burn calories causes relief of the fear of gaining weight: [...] "I like the gym because it develops the body". (04). [...] "Swimming and running are what I like because they make me lose weight" (08).

A reason for adherence to programs of physical exercises is then configured: to promote weight and body control. Despite the relief, this type of activity seems to be carried out as required, as there was another option: "I am in physical activities to control my weight, but with a sense of obligation" (01).

If, in some reports, this direct link between exercise and control of the body appears, it is not established as a standard, or not necessarily, the "welfare" effect is a result of burned calories; one should not do exercises only to lose or maintain weight. There are activities that seem to have been released from weight control, from the sense of obligation. Walk and dancing appear in most reports associated with feelings of lightness, freedom, calm and joy:

> I like walking because it is the only thing that I really do that brings me a sense of lightness and freedom. (02)
>
> I love walking and dancing because it distracts the mind, get in touch with other people and makes me calm. (03)

It is, thus, observed that from the look sent by the volunteers in their reports that physical activity may have a role in maintaining the disorder, since it is practiced on a, exhausting way, it helps control weight but can also have a therapeutic role, since it refers to feelings that make one calm and help with the contact with other people. These features depend on physical activity, then the time and purpose which it is practiced with.

Among the reports, one can distinguish a connection between specific activities and the start of the eating disorder. The body has been linked by two volunteers to the beginning of the eating disorder. Volunteer 06 found that weight lifting caused changes in her body, which made her scared. Volunteer 04 said her desire to lose more and more weight grew with the increase in her weight lifting practice. Volunteer 01 brought another perspective on the relationship of exercise and the onset of NA: after

reporting that she links the ballet to the beginning of her eating disorder, it is clear it was not the ballet itself, but the expectations that fell on her achieving the thin and slender body of the ballerina reinforced in the dance school and in her family. In other reports, there was no connection between the predominant sports practice and the beginning of the eating disorder, i.e. it was not recognized that practicing physical exercises are always a predisposing and/or triggering factor of the NA.

3.3 THE PHYSICAL EDUCATION TEACHER

In only one report, the physical education teacher was literally cited. Volunteer 02 reported that an experience, marked by the failure of her physical education teacher, made her feel more ashamed of her body, more gangling, emphasizing the feeling of being less agile than her peers, less appropriate. What came up was a deep regret for any exercise that could be associated with school physical education, especially collective sports.

3.4 CURRENT EXPECTATIONS

When choosing activities they would like to practice today, the individual activities and activities with low impact were considered good and related to all respondents, with a sense of calm, balance and lightness. In reports, you can identify a tendency to choose activities that promote these senses, which are already known, in detriment of new experiences or the resumption of some practice that in the past may have been frustrating.

It seems, then, that it is expected that the exercise is an area of support, where they can let their body have fun in an environment that is known, safe, and that, generally, does not evoke feelings and unpleasant sensations. The area of physical activity is set up, in its speeches, as a promise of relief, of being one more tool in their treatment process.

Table 1 below was developed from a more individual look for each volunteer, allowing to compare answers and see tendencies in objective way at the same time:

Subjects	Before the beginning of the Anorexia		Body experience / Beginning of the Anorexia	During the Anorexia	
	Most liked/reasons	**Least liked/reasons**		**Current activity that you most like**	**Current activity that you least like**
1	Ballet/actress: liked arts, dancing, looking at the mirror	Volleyball, basketball: shame, lack of affinity	Ballet: social representation of the lean ballerina; relationship with a very proud mother	Dancing, activities in nature: pleasure, creativity, balance, happiness	Food control – prison Physical Activity – obligation Vomiting - depression
2	Swimming at grandmother's pool: privacy; no competition	Collective Sports: failure, fear, brutality	Sports: shame and timidity, disrespect from the Physical Education teacher	Walking: lightness and freedom	Restriction – suffering, pain, anger Vomiting – disgust, frustration, fear
3	Stretching: welfare, mood for other activities	Volleyball: failure, disinterest	No	Walking, dancing: distraction, calmness, socialization	Eat little – anger Physical Activity – relief to lose weight
4	Weight lifting: body shaping	Basketball: brutality	Weight lifting: desire to lose more weight	Walking: relaxation; weight lifting: shaping the body	Nutrition (?) Psychology (?) Psychiatry (?)
5	Basketball: ??	Games and children's plays: disinterest	No	Basketball: ??	Did not answer: "very personal issue"
6	Volleyball: fun and dynamic	Weight lifting – body structure change	Weight lifting: bigger concern with weight and fat	Dancing, volleyball: uses the body much	Not to eat – anguish
7	Dodgeball: fun	Volleyball: failure	"constant concern with the body"	Dancing and walking: ??	Not to eat – self-control Laxative – welfare
8	Shuttlecock: ??	Basketball: failure	No	Activities in nature: loves country air	Diet – guilt Physical Activity (swimming and running) – losing weight

Table 1 – summary of the facts

4 DISCUSSION

After the descriptive analysis of the answers to the questionnaires, we faced a variety of physical activities and reasons to like and dislike physical exercises. GABLER (1989) sets out five main groups of reasons that determine the involvement in physical activities/sports: reasons related to sports practice itself and related to the "I", reasons related to sports practice itself and the social, reasons related to the results of sports practice and the "I", reasons related to the outcome of sports practice and the social and practical, reasons related to sports as a means for other purposes and the "I". In our group of interviewees, the reasons reported are, for the most part, grouped in that large group. They practice the exercise as a means to achieve other benefits - relaxation, compensation, contacts, approaches - and not only do or to do better than others. Dancing and walking are the activities currently practiced by most of the volunteers of the survey. These activities were associated with feelings such as freedom, lightness and relaxation.

Not liking seems to be closely related to bad feelings and sensations experienced before. A competitive environment and a little adequate professional help the sport experience be frustrating. These two elements - environment and inadequate professional - may lead to a wrong perception by students of their performance, considering it always bad, unsatisfactory. Physical exercise becomes a burden, it is easier to leave it than carrying it on. Collective and/or impact sports, in general, were marked as unsuccessful, mainly related to feelings of shame, failure, fear and indifference.

Although it was not a general rule for all the volunteers of survey, the similarity of the answers about the feelings related to collective sports and rhythmic activities was remarkable. Whereas the subjects of this study are all female, we can refer to historical questions about the activities of Physical Education classes. Impact activities, sports in general, were seen as suitable for men because it helps develop strength, as the male body should be strong and sturdy. As for the woman, she should practice dancing and gymnastics, activities full of docile and gentle movements, stated as feminine (and SOUZA ALTMAN, 1999). These traits and values of hygienist gymnastics, educator of bodies, from 19th century Europe (SOARES, 2000) remain, even if implicitly and subliminally to the present day. That may explain in part the feelings of shame and fear of failure of some volunteers for collective sports and the tranquility to engage in dancing and gymnastics.

Many physical activities programs specific to people with Anorexia Nervosa found at the moment focus on their goals, especially in clinical symptoms of patients, in particular weight gain and adherence to psychotherapy.

Touyz et al. (1984) proposed a new method of behavioral work for the treatment of NA. For nine weeks, they compared the effects of the conventional treatment method with total restriction of physical activity and a lenient method, with the possibility of walking by the treatment unit, in 65 patients, divided in two groups. It was observed that there was no significant difference in weight gain between the two treatment groups. Furthermore it was found that 24% of patients in the tenderest group, aka lenient, and 10% of patients in the conventional method were cooperative with the group of caregivers over six weeks. Moreover, the lenient method patients became more willing to psychotherapy.

BEUMONT et al (1994) conducted a survey, reviewing the role of physical activity in excess and proposed a program of assisted exercises, emphasizing that considerations, explanations and reflections on the harm resulting from the excesses of exercises are included in the treatment of eating disorders.

Thien et al. (2000) propose a three-month exercise program for non-hospitalized patients with different degrees of exercise type, duration and level of activity. The intensity of physical activity depends on body mass index (BMI) and body fat percentage (BF%), and activities vary from stretching, resistance and cardiovascular exercises. This program aimed to see how much the quality of life improves with the practice of exercises, without reduction of fat or body mass. It could be concluded that in 3 months of experiment, the BMI and the BF% increased without significant differences between groups, and the experimental group had better quality of life, measured by SF-36, contrasting with falling levels of quality of life the control group.

Tokumura et al (2003) observed, for a period of one year, 17 women diagnosed with NA, seeking out improvements in aerobic capacity, when subjected to an exercise program. Nine volunteers with stable weight and 25% fat in their body mass were subjected to 30 minutes of aerobic exercises and strength training for 5 days a week. The eight other volunteers were the control group. At the end of 12 months, it was concluded that both groups increased their BMI and BF%, and the increase occurred at a higher level in the experimental group. Both increased their aerobic work capacity

for, but the increase in the control group was not statistically significant, unlike what happened with the experimental group.

During these studies, much has been achieved in understanding the benefits of the supervised practice of physical activity for people with eating disorders, reinforcing its importance as part of the treatment.

It is also important to consider the person with Anorexia Nervosa as someone who says that the body cannot create words. The symptoms of weight loss, stubbornness, obstinacy, fear expressions are written in the flesh of an identity that seeks resources to build itself. In the lack of resources, remaining safe in stereotyped movements and the "not-to-eat" becomes a way to prevent yourself from invasion, marking its boundaries and remaining alive. Knowing what happens in the body reality of each subject with anorexia nervosa is a respectful attitude towards the subject, applicants with histories of invasion and devaluation.

In another line of thought, found in Carraro et al (1998), a research in which the main targets of the physical activities program related to individual identity, relations with other patients, relationship with the body and the beginning of building a correct concept of the use of physical activity. The authors conducted a survey in which 96 patients with eating disorders were submitted to an adapted physical activity program. Activities such as dancing, adapted sports, gymnastics, activities of expression and relaxation, in groups and individually, were proposed. The authors of this research consider physical activity an emotional and body experience that can help improve self-esteem, difficulty in social relationships, physical capabilities, among other things. The focus was not on the performance but on the perceptual-body experience that each physical activity can provide.

We also found Duesund and Skarderud (2003), who in their exploratory study based on theoretical phenomenology, submitted 7 women with severe anorexia nervosa to an adapted physical activities program to investigate whether the social interaction in physical activities could move the negative attention that people with anorexia nervosa have on their body to a more profound and subjective experience with it. The activities were non-competitive, challenging, and should focus on the social aspect and relaxation. The methods ranged from water activities, indoor climbing (wall climbing), relaxing activities, with balls, skiing, horse riding and hiking and trekking in nature. The authors concluded that the adapted physical activity can be

used clinically to treat people with anorexia nervosa and encourage future researchers to go deeper in examining this issue.

When seeking to understand how a person who suffers from anorexia nervosa is related to the physical activities, their desires and expectations, the individual is placed at the center of this issue, and thus you can bring to light not only their concern with their weight and body shapes, but also offer activities that allow each individual recognize its possibilities and limitations, i.e. allow the subject to have further knowledge on their own reality. Learning more about themselves, more specifically what afflicts them, what makes them feel good help establish resources for stressful moments and traumatic situations.

5 FINAL CONSIDERATIONS

Throughout this study, we sought to understand the meanings that physical activity can have for people with Anorexia Nervosa, and the feelings that certain activities can bring them.

From the discussions presented, we believe that a physical activities program for people with anorexia nervosa should provide them a space to feel safe and confident to express themselves bodily, building and rebuilding foundations that strengthen their body identity.

It would be irresponsible to ignore the care imposed by the physical condition of these people, but the most important is the sensitive attitude of the professional to perceive physical and emotional needs and help them recognize their feelings.

We encourage that further studies, with the prospect of what was presented here, are made with bigger groups of people with AN and other groups of people with eating disorders, which will enable the creation of physical exercise programs suitable to the expectations of this population.

Experiences and expectations in physical activity practices of people with anorexia nervosa

Abstract: Through a descriptive exploratory study, in a qualitative perspective, body experiences and physical activities were investigated in people with anorexia nervosa, exploiting their motives, their expectations, their relationship with the exercise in the course of the disorder and the role of teacher of physical education. The data reinforce the need to provide a safe environment, respect with the individualities and aid in the recognition of the limits and bodily sensations in proposals for physical activities for people with anorexia nervosa.

Key words: Anorexia nervosa. Motor activity, Exercise Therapy

Experiencias y expectativas en prácticas de actividades físicas de personas con Anorexia Nerviosa

Resumen: A través de un estudio exploratorio descriptivo de cuño cualitativo, fueron investigadas las experiencias motoras en personas con anorexia nerviosa, explorando sus motivos, sus expectativas, su relación con el ejercicio en desarrollo de trastorno y el rol del profesor de educación física. Los datos refuerzan la necesidad de proporcionar un ambiente seguro, de respeto a la individualidad y auxilio en el reconocimiento de límites y sensaciones corporales en propuestas de actividades físicas para personas con anorexia nerviosa.

Palabras Clave: Anorexia nerviosa. , Actividad Motora. Terapia por Ejercicio

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