

The Experience of Participating in a Choir in the Pulmonary Rehabilitation Program of the ABC Medical School: Patients' Perception

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Abstract

Objective: describe using a semi-structured questionnaire the perception of patients with CRD of a PRP after participating in a Choir and the possible benefits.

Methods: Retrospective, qualitative and discriminative study with analysis of structured interviews and medical records; 44 patients under treatment in the PRP who participated in the choir from 2012 to 2015 were analyzed, the responses were grouped into 4 groups: socialization, emotional, physical and did not know how to answer.

Result: In this period, 44 patients were interviewed, 23 men and 21 women aged 67 (40 ± 84), MRC 2 (1 ± 4), FEV1 after BD% 45 (15 ± 107) and 05 of the total group maintained the work activity. The subjective perceptions regarding the benefits of this activity were: emotional 45% (20); socialization 36% (16); physical 14% (6); did not know how to answer 5% (2). In the structured interview, five patients considered this choral singing activity before participating in the PRP and after the 41 participation; they considered it possible to develop this activity even with respiratory disease. Conclusion: The singing activity in patients with CRD has been shown to enhance health treatment, associated with the physical benefits already proven by the participation of PRP, the main benefit for them being the emotional state and socialization.

Keywords: Occupational Therapy; Singing; Music; Respiratory Diseases

Introduction

Through singing/choir, psychic and socio-cultural development can be expressed, as music adds values and meanings that originate from desires and feelings that range from individual to social development. On the one hand, the social values that precede the individual are present and, on the other, the possibility of singularization that resides in its playful component. It mobilizes our mental and motor functions [1-3] and is considered a therapeutic resource that promotes the improvement of quality of life. This study reports the perception of patients with chronic respiratory disease (CRD), who, even with severe dyspnea, engage in an innovative activity for the majority.

Patients with chronic respiratory disease (CRD) have altered lung function, dyspnea and dysfunction of peripheral skeletal muscles. These factors associated with efforts and exercise intolerance, can limit the performance of activities of daily living (ADLs) and restrict involvement with real life situations (social participation) [4,5].

Social isolation, anxiety and depression, often accompany this health condition, further compromise quality of life and with the progression of the disease these factors worsen substantially [6]. To minimize the impairment the occupational damage caused by CRD, as

well as to inhibit its progression, several procedures are used among them: the exclusion of risk factors, such as smoking cessation, pharmacological treatment, oxygen therapy, support ventilation and the multidisciplinary service pulmonary rehabilitation program (PRP) [4,7-10].

The PRP is a program, designed to optimize the patient's physical and psychosocial performance, with multidisciplinary participation (doctors, physiotherapists, physical educator, occupational therapists, psychologists and nutritionists) of care for patients with CRD. When properly targeted, it improves ADLs, the ability to exercise, quality of life and reduces frequency and length of stay, reduces respiratory symptoms, and anxiety and depression resulting from CRD [4,10].

Occupational therapy (OT) is based on the understanding of involvement in occupations, organizes daily life and contributes to the health and well-being of the patient. Considering that occupations are multidimensional and complex, the following aspects of performance are involved: the subjective (emotional and psychological) and the objectives (physically observable) [7] In general, OT contributes to the best performance in the activities that are in the patient's life purpose [4,7].

CRDs have great occupational impacts, especially when associated with depression and/or anxiety. In the context of CRD, TO's performance stands out in the possibility of involving the individual in daily activities or occupations that he wants and/or needs to do in a way that supports health and participation; and more specifically, in the process of readjusting the daily life of people with CRD. Which means, above all, to make the performance of the ADLs compatible with the health status, increasing or reducing the requirements according to the individual's desire in contrast to the subjective and objective aspects [11,13].

Therefore, the choir was always formed with the active participation of patients with OT and FMABC students and in each meeting the adaptations, wishes and memories were inserted in this proposal. The involvement in occupations is multidimensional and complex and the performance aspects: subjective (emotional and psychological) and objectives (physically observable) were taken into account [11].

Objective

The aim of this study was to describe using a semi-structured questionnaire the perception of patients with CRD of a PRP after participating in a Choir and the possible benefits.

Methodology

Retrospective qualitative and discriminative study with data analysis of semi-structured interviews, with direct and open question. of 44 patients undergoing treatment at the PRP who participated in the choral singing activity over a 4-year period. Inclusion criteria were: chronic lung disease; undergoing treatment during the questionnaire application period; participated in the choir, both genders, over 40 years old. As an exclusion, not having participated in the PRP Choir.

All patients signed the informed consent form, according to the approval of the Research Ethics Committee of FMABC, CAAE: 54173216.6.0000.0082.

To identify the patients' perception of this activity, a semi-structured interview with closed responses was elaborated, as shown in table 2 and an open question about the benefit of the Coral for them, the other data were information from the medical record. During the period analyzed, patients had four presentations, one per year, with weekly trials two months before the presentation.

Of the 44 patients who answered the survey, all were selected for convenience, considering that they were under treatment in this period. To participate in the Choir, patients are invited and, as in all socialization proposals, participation is voluntary.

The interview consisted of an open question about the benefit of this activity and the remaining closed questions. For quantitative analysis, closed answers were added and for the open question, qualitative analysis was used, grouping similar responses into four groups: (G1) emotional: joy, distraction, improves self-esteem, fun, well-being. (G2) socialization: interacting, socializing, well-being in contact with people, meeting colleagues, family interaction with colleagues; (G3) physical: respiratory movement, lung exercise, improved breathing and (G4) did not know how to answer.

The data collected included in the analysis were: age, gender, work, and expiratory volume in the first second after bronchodilator use (FEV1 after BD). During the period analyzed, patients had four presentations, one each year, with weekly trials two months before the presentation (Table 1).

Demographic Data	
F / M Sex	21/23
Age	67(40-84)
Work S / N	05/39
Mrc	2(1-4)
Fev1 Pos Bd%	45(15-107)

Table 1: General characteristics of patients.

Experience report

The FMABC PRP develops a project called “Super AR ação”, which proposes differentiated socialization activities, which are generally not performed by CRD patients due to the physical difficulties presented, such as dyspnea when speaking [9]. Among these activities, choral singing is included, which aimed to stimulate the cognitive, increase social participation, leisure and bring the family closer to the health service, instigating the overcoming of the individual, improving quality of life and greater adherence to treatment [1,7,13].

The choir’s first performance was at a year-end celebration party with the participation of their family members and the PRP team and had the support of a patient on the guitar and two students with electronic piano and half moon tambourine, at first there was astonishment and little credit from a choir with CKD patients, but as soon as we started the trials, the idea changed, patients were feeling empowered and adhered to the proposal.

In the following years the presentations kept the same format, the songs were always chosen by the patients, with the participation of students from the FMABC undergraduate course, the rehearsals were carried out before the PRP physical exercise. The FMABC PRP has two groups, one three times a week and another twice a week. Rehearsals take place 10 to 15 minutes before exercise, general rehearsals are done before the presentation and one on the day of the presentation.

Results

Content analyzes were performed with semi-structured interviews, with a direct and open question. The 44 patients were analyzed homogeneously and all were being treated at the PRP from 2012 to 2015 (Table1). Because it is CRD with a high number of mortality and people affected, we see the importance of new treatment proposals for this population.

The population of our PRP was mostly elderly and 89% and no longer engaged in paid work, with a prevalence of men. The degree of the disease is diverse, with the majority being moderate (Grade 2), shown in table 1 by the MRC and FEV1 dyspnea scale. The perception of these patients according to the semi-structured interview questions is shown in table 2.

Of the 44 patients, only 8 had already thought of participating in the singing activity throughout their lives, but in view of the experience, the perception was of performance capacity, as 41 of the 44 patients believed in the possibility of singing even with CKD.

The open question was: "In your opinion, what is the benefit of this activity?" The definitions most used by patients were:

- Of the 44/20, they answered emotional aspects: "joy, distraction, improves self-esteem, fun, well-being".
- Of the 44/16, they responded to aspects of social participation: "interacting, socializing, well being in contact with people, meeting colleagues, family interaction with colleagues".
- Of the 44/6, they answered physical aspects: "respiratory movement, lung exercise, improved breathing".
- Of the 44/2 They did not know how to answer. In table 3, responses were grouped into 4 most cited benefits.

Discussion

Considered the third leading cause of death in the world, those affected by CKD need constant updating and new treatment proposals for this population [2].

Our results show that the choir activity, enabled positive effects in relation to personal and social well-being (Table 3) and in table 2 we can see that most of the patients participating in this research had considered themselves capable of exercising this activity, which provides empowerment in the face of its limitations getting involved and participating in positive occupations promote health [11].

Emotional	45%
Socialization	36%
Physicist	14%
Do Not Know	5%

Table 3: What are the benefits of this activity?.

In studies by Lord of 2010 and 2012 [3,14] it was demonstrated that there are benefits in quality of life, reduced anxiety and this activity has more benefits when compared to other group activities.

Both speaking and singing require an expiratory air flow capable of activating the vibration of the vocal folds. Professional singers, when "training" their voice, often focus on developing conscious control of the breathing mechanism. This control must always be consistent with the individual's physiological air requirements [14]. Therefore, our idea with the choir was also to improve this perception of conscious control, to contribute to recovery in moments of shortness of breath in an activity of greater effort.

A study by Cassol [15] describes the vocal characteristics found in elderly individuals that are characterized as harshness, hoarseness, tremor, which causes short phrases and the need to replenish air, reduction in intensity, reduction in speech speed, this independent respiratory disease and concluded that the choral singing program was effective and provided improvement in vocal patterns in relation to the parameters of vocal quality, pneumo-phono-respiratory coordination, respiratory type, articulation and vocal attack. Our sample was mostly elderly, and health monitoring considers this aspect as important in the quality of life results.

Man is a social being and throughout life, he will assume various roles and belong to different groups. As the aging process progresses, social networks are reduced and the opportunities for mature and elderly individuals to live together. In general, socialization activities like this one of the choir are not common treatment practices for CRD in PRPs. This choral activity is part of the project, which are diverse activities focused on biopsychosocial aspects. Each year the patients' involvement and expectations grow both for the choice of songs, clothes to wear on the day, and to show their family how to overcome them.

It is perceived that, doing new activities such as singing, can bring well-being and change in the perception of occupational roles developed at present, because throughout life we all suffer changes in this aspect, due to aging, when associated with CRDs, which is limiting not only by physical factors, but mainly how each one is affected by the diagnosis. Thus, after individual evaluations, the focus of the service provider turns to the better occupational performance of this individual in their space, but also providing another opportunity for participation and welcoming.

In patients with CRD, the high prevalence of anxiety and depression often accompanies this health condition. Anxiety is mainly related to intense dyspnea, the most common complaint of patients; with that, they avoid physical effort and what accentuates their physical deconditioning, establishing a vicious cycle of constant worsening of dyspnea [16]. In relation to depression, a possible explanation is that this would be a psychological response of the patient as he is confronted with the significant limitations to perform the ADL's and with the effort required to adjust to the disability. Both anxiety and depression directly influence participation in life in this population [16].

As the disease progresses, the patient presents "losses" in several areas: leisure, social, professional, sexual, interpersonal [12]. Thus, the activities of our "SuperARção" project provide social involvement and feelings of emotional improvement, health education is of great importance for this population.

The activities carried out in groups are dynamic and based on the demands raised mainly in individual care, in our PRP all patients are evaluated by the multidisciplinary team and return visits depend on the needs of each home, the interests and suggestions of patients are always considered.

The big difference from singing to speech is that it requires rapid inhalation followed by a prolonged exhalation, while for most other daily activities, inspiration and exhalation are similar [17]. The main difficulty for the performance of this activity is dyspnea, to solve this difficulty the songs are adapted without extreme extensions and with the large number of patients, so while some stop the others continue and the set is what allows this activity to be performed with this kind of benefits.

Conclusion

Our study concluded that the patients, who participated in the choral singing activity, obtained as main perception the benefits, the social and emotional factors, demonstrating that this activity is potentiating in a PRP.

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