

Impact of activities in self-esteem of patients in a pulmonary rehabilitation program

Impacto das atividades na autoestima dos pacientes em um programa de reabilitação pulmonar

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ABSTRACT

Objective: To evaluate self-esteem and self-image of respiratory diseases patients in a Pulmonary Rehabilitation Program, who participated in socialization and physical fitness activities, and of patients who participated only in physical fitness sessions. **Methods:** A descriptive cross-sectional exploratory study. Out of a total of 60 patients analyzed, all enrolled in the Pulmonary Rehabilitation Program, 42 participated in at least one of the proposed activities, 10 did not participate in any activity and 8 were excluded (7 were discharged and 1 died). **Results:** When the two groups were compared, despite the fact that both demonstrated low self-esteem and self-image, the difference between them was relevant ($p < 0.05$) regarding self-esteem, indicating that those who participated in the proposed socialization activities had better self-esteem than the individuals who only did the physical fitness sessions. Regarding self-image, the difference between the groups was not relevant ($p > 0.05$). **Conclusion:** The Pulmonary Rehabilitation Program patients evaluated presented low self-esteem and self-image; however, those carrying out some socialization activity proposed had better self-esteem as compared to the individuals who did only the physical fitness sessions.

Keywords: Lung diseases/rehabilitation; Self concept; Socialization; Aged

RESUMO

Objetivo: Avaliar a autoestima e a autoimagem de pacientes com doenças respiratórias de um Programa de Reabilitação Pulmonar, que participaram de atividades de socialização e de treinamento físico e de pacientes que participaram apenas de treinamentos físicos. **Métodos:** Estudo exploratório descritivo e transversal. Foram analisados 60 pacientes, todos inclusos em um Programa de Reabilitação Pulmonar. Destes, 42 participaram de pelo menos

uma das atividades propostas, 10 não participaram das atividades e 8 foram excluídos (7 tiveram alta e 1 faleceu), não respondendo ao questionário de autoimagem e autoestima. **Resultados:** Quando comparados os dois grupos, apesar de ambos terem apresentado autoestima e autoimagem baixas, a diferença entre eles foi significativa ($p < 0,05$) com relação à autoestima: aqueles que participaram de atividades de socialização propostas pela equipe tiveram autoestima melhor que a dos sujeitos que participam apenas do treinamento físico. Já quanto à autoimagem, a diferença entre os grupos não foi significativa ($p > 0,05$). **Conclusão:** Os pacientes do Programa de Reabilitação Pulmonar avaliados apresentaram baixas autoestima e autoimagem, porém aqueles que realizaram alguma atividade de socialização proposta tiveram a autoestima maior comparada à dos que fizeram apenas o treinamento físico.

Descritores: Pneumopatias/reabilitação; Autoimagem; Socialização; Idoso

INTRODUCTION

Chronic respiratory diseases (CRD) are conditions of the upper and lower airways. Asthma and chronic obstructive pulmonary disease (COPD) are the most frequent in this group and are a major health problem worldwide. The World Health Organization (WHO) and the World Bank estimate that 4 million people with CRD may have died prematurely, in 2005.⁽¹⁾

Some consequences of these diseases are pulmonary malfunction, dyspnea, and dysfunction of the peripheral skeletal muscles. Such factors lead to exercise intolerance and progressive worsening of physical fitness, to the point of limiting activities of daily living (ADL).

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With disease progression, physical disability, loss of productivity, and worsening in quality of life intensify substantially, what may cause social isolation, anxiety, depression, and dependency, often times associated to a loss of self-esteem. Those patients also often present weight and body composition changes, factors which may also contribute to their physical and self-image limitation.⁽²⁾

One of the treatments for CRD is the Pulmonary Rehabilitation Program (PRP), defined by the American Thoracic Society (ATS) and the European Respiratory Society (ERS) as a comprehensive multidisciplinary evidence-based intervention for symptomatic patients with CRD, with reduced ADL.⁽³⁾ The objectives of the PRP are to control symptoms, improve the ability to perform daily activities, exercise performance, and quality of life.⁽⁴⁻⁶⁾

In general, PRP includes physical conditioning protocols,⁽⁷⁾ and socialization activities (SA) may be a complementary part of the PRP. Such activities act as a way of saying the human condition, promoting social exchange and interrupting isolation and invalidation of the individuals, helping in daily care, allowing them to act over their own environment, and providing different experiences and opportunities.⁽⁸⁾

In the PRP of the *Faculdade de Medicina do ABC* (FMABC), some SA were proposed besides physical conditioning. Among them, educational lectures related to CRD, choir, beach tour with guided activities, such as surfing and walking, waste-recycling workshop, and cultural parties (June celebration – St. John the Baptist's, and end-of-the year celebration, for example).

Those SA are part of a project called “Overcoming”, which focuses at facing situations that are not so common for the patients, but which enhance their self-confidence, self-image, and self-esteem. Characteristic habits and values that help in personality development and integration in the group were identified in these activities, rendering the aged sociable. Some habits which are not inherent, “in a state of social isolation, the individual is not capable of developing a human behavior, since that should be learned through his/her interactions with social groups”,⁽⁹⁾ and increasing the patient involvement in the rehabilitation program/process. The literature confirms better self-esteem, quality of life, and the emotional components of health, besides reduction in anxiety and depression after a PRP.^(10,11)

Self-esteem is defined as a group of attitudes that a person has over oneself, including the subjective assessment of oneself and the way of being, according to which a person has positive or negative ideas about himself/herself. Self-image arises in the interaction with

the social environment, as a consequence of establishing relationships with others and with oneself, encompassing an organization the person has over oneself, with a more real and a more subjective parts. Both, self-esteem and self-image, suggest constant inter-influences that help us understand ourselves and understand the others, in the most real way possible, it is in alterity the act of life is accomplished.^(10,12-14)

This research aimed to evaluate the effect that SA together with the PRP have over the subjects. No other study was found in the literature on the effects of SA over self-esteem and self-image of patients in a PRP.

OBJECTIVE

To evaluate self-esteem and self-image of respiratory disease patients in a Pulmonary Rehabilitation Program, who participated in socialization and physical fitness activities, and of patients who participated only in physical fitness sessions.

METHODS

A cross-sectional study with a sample of 52 patients selected by convenience in June and July, 2014, from the Pulmonary Rehabilitation Outpatients Clinic - FMABC. The inclusion criteria in the study were having chronic respiratory disease; being treated during the period of questionnaire distribution; and having agreed to participate in the study, signing the Informed Consent. The exclusion criteria was to be discharged from the program, even if the patient had participated of the SA proposed.

In order to identify the subjects of the research, a structured interview was created, that identified participation or not in the SA, and that ascertained the subjects' perception relating SA to their self-esteem.

In order to evaluate self-image and self-esteem, the Steglich questionnaire⁽¹⁵⁾ was used, encompassing 78 questions, adapted by Safons,⁽¹⁶⁾ who organized two questionnaires made of 15 questions each, one concerning self-esteem, the other self-image, using the trends methodology. Items 1 to 15 of questionnaire 1 addressed self-image, whereas items 1 to 15 of questionnaire 2, regarded self-esteem. Therefore, to evaluate the variables self-esteem and self-image as high or low, a cutoff point was established following the classification: low self-esteem scored between 15 and 59 points; and high self-esteem, 60 to 75 points; low self-image scored between 15 and 59 points; and high self-image, 60 to 75 points.

The individuals selected responded to the interviews and questionnaires on self-esteem and self-image

individually, in an office, during the period of the PRP. Each SA was conducted once or twice a year, from 2012 to 2014.

All patients signed the Informed Consent, according to the approval by the Research Ethics Committee of the FMABC, CAAE: 31586114.2.0000.0082 on June 25, 2014.

The questionnaires were filled in and all data obtained were organized in an Excel for Windows 2010 spreadsheet. Descriptive statistics was calculated, as well as mean and standard deviation for the variables age and SA participation.

For the statistical analyses, the software GraphPad Prism 5 for Windows was used. Mann-Whitney U test was used to analyze sample homogeneity. The Student *t* test was used to evaluate the patients' answers to the self-esteem questionnaire and to compare them. For the results with non-normal distribution, the Mann-Whitney test was applied. The significance level used for the tests was of $p < 0.05$.

RESULTS

The clinical and sociodemographic profile of 52 patients (30 men and 22 women) is detailed in table 1.

The first group did SA, participating in educational lectures related to CRD, choir, tour to the beach with guided activities, such as surfing and walking, waste-recycling workshop, and cultural parties (June celebration – St. John the Baptist's, and end-of-the-year celebration). Comparing the questionnaires (Tables 2 and 3), the results obtained in the sample for self-esteem and self-image were low, with a mean of 54.94 ± 9.12 points. Table 2 describes the groups separately in regard to self-esteem and table 3, as to self-image.

Table 1. Demographic characteristics of the sample

Sex	
Male	30
Female	22
Age	
Mean	65.63
Standard deviation	11.16
Respiratory disease	
Asthma	1
COPD	46
Lung fibrosis	3
Pulmonary hypertension	1
Tuberculosis sequelae	1
Activities proposed	
Participated	42
Did not participate	10

COPD: chronic obstructive pulmonary disease.

Table 2. Comparing results of the questionnaire on self-esteem

Socialization activities	Mean	Standard deviation	p value
Participant	57.85	10.82	0.0328
Non-participant	53.9	12.64	

Table 3. Comparing results of the questionnaire on self-image

Socialization activities	Mean	Standard deviation	p value
Participant	55.78	7.9	0.1849
Non-participant	51.4	13	

When the two groups were compared, despite both presenting low self-esteem and self-image, the difference between them was significant as to self-esteem, which indicates that those participating in some of SA proposed by the team had better self-esteem than the subjects that took part only in physical training. In regards to self-image, the difference between the groups was not significant.

The participation distribution of the 42 patients in the SA of the PRP is described in table 4. When asked during interviews about the contribution of the SA to self-esteem, 40 (95.24%) out of 42 patients who participated in activities other than physical training stated that there was a contribution, and only 2 (4.76%) said that there was none. Of those 40 patients, 25 commented on their own answers, 15 patients saying that the most important gain was being together with other subjects, what improved their social participation; the other 10 reported better energy and some learning.

The distribution in SA participation independent of the PRP (Table 5) by the 52 patients were as follows: of

Table 4. Distribution in socialization activities participation in the Pulmonary Rehabilitation Program

Activity	Yes	No
Educational lectures	26	16
Choir	28	14
Waste-recycling workshop	22	20
Beach tour	25	17
Cultural parties	24	18
Contribution to self-esteem	40	2

Table 5. Distribution of participation in the socialization activities not included in the Pulmonary Rehabilitation Program

Activity	Yes	No
Educational lectures	8	44
Choir	2	50
Waste-recycling workshop	1	51
Beach tour	18	34
Cultural parties	15	37

the 52 patients studied, 32 (61.33%), in general did not participate in any of those activities out of the PRP and 20 (38.47%) participated in at least one of them.

DISCUSSION

Our data demonstrate improvement in self-esteem in the patients who did SA along with the physical training of the PRP, in comparison to the patients who did not participate in the SA. Self-image did not change when comparing groups.

In this sample, the patients in PRP had low self-esteem and self-image. The importance of this is due to lack of literature about the topic⁽¹⁶⁾ and to the fact that a high self-esteem indicates that the subjects consider themselves as people of value, respecting themselves for what they are, and not feeling, necessarily, better than the others. On the other hand, low self-esteem demonstrates devaluing, dissatisfaction, and lack of respect for oneself. Self-concept evaluation is part of self-esteem. While self-concept constitutes the different perceptions that the individuals have about their personal characteristics, self-esteem is characterized by the positive or negative evaluation that people make of those same qualities^(17,18) Therefore, it is relevant to organize SA that can work and contribute for patients to change⁽¹⁹⁾ their self-image and self-esteem.

In general, our SA are new practices in the treatment for patients with chronic respiratory diseases. A study conducted by Guedes et al.⁽²⁰⁾ with an elderly population demonstrated that handcraft work empowered the elderly's self-image, by means of making concrete work, as well as by socialization, minimizing the impact of aging and even giving room for artistic skills to emerge and be improved, concluding that socialization does good for them.

In the present study, although the results of the questionnaires demonstrated low self-esteem and poor self-image, the patients reported, in the structured interview, that the SA contributed to improve self-esteem. This study was based in one single use of the self-esteem and the self-image questionnaire, and its result reflected how patients were in that point in time. The interview, in turn, could consider, from the patient standpoint, how they felt in relation to the process, how they were before and upon interviews, making clear that, in the patients' perception, the SA had contributed to their self-esteem.

The structured interviewed suggested that the majority of the population studied did not participate in SA independently from the PRP, but participating in the PRP⁽¹¹⁾ favored social inclusion. Besides the physical part, the PRP also influences positively in psychosocial comorbidities, such anxiety, depression, personality

features, such as introversion, sensitiveness, strength, somatization, and hostility.⁽²⁰⁾

Another consideration about this study was that the sample comprised elderly individuals.⁽²¹⁾ The body image of the elderly gradually adjusts to the body, along with the aging process, but it may change due to disease processes or motivation disorders, which may affect movement alterations. In this study, the poor self-image of chronic respiratory disease patients was confirmed. It is considered that elderly people, for many reasons, are not able to find new forms of living with the changes and end up limiting their communication and expression possibilities, what may generate some type of change in the way they see and feel their body, that is, their body image.^(22,23)

Some studies demonstrated that in old age there is a trend towards a modification in self-image, it becomes less positive, and the reason for this change is yet unknown.⁽²⁴⁾ Changes are inter-connected, depending on one another and vary according to sex, reflecting the social roles of the person.⁽²⁵⁾ This research did not focus on gender but rather in disease factors and age.

The following aspects were considered as limitations of the study: occasional SA (in average, once or twice a year); mean age of elderly people who, regardless of respiratory diseases usually present low self-esteem;⁽²⁴⁾ the number of patients not participating in SA was smaller in relation to the number that participated (for the program this is positive, since it demonstrated the majority took part in the SA); the instrument used was the questionnaire on self-image and self-esteem, adapted by Safons, and based on a version developed by Luiz Alberto Steglich, in 1978.^(15,16)

CONCLUSION

The Pulmonary Rehabilitation Program patients evaluated presented low self-esteem and poor self-image, but those who participated in any socialization activity had better self-esteem as compared to the individuals who did only physical training.

REFERENCES

1. Brasil. Ministério da Saúde. Secretaria de Atenção à Saúde. Departamento de Atenção Básica. Cadernos de Atenção Básica. Doenças respiratórias crônicas. Brasília, DF: Ministério da Saúde; 2010.
2. Zanchet RC, Viegas CA, Lima T. A eficácia da reabilitação pulmonar na capacidade de exercício, força da musculatura inspiratória e qualidade de vida de portadores de doença pulmonar obstrutiva crônica. *J Bras Pneumol.* 2005;31(2):118-24.
3. Nici L, Donner C, Wouters E, Zuwallack R, Ambrosino N, Bourbeau J, et al. American Thoracic Society/European Respiratory Society Statement on Pulmonary Rehabilitation. *Am J Respir Crit Care Med.* 2006;173(12):1390-413.

4. Global Strategy for the Diagnosis, Management, and Prevention of Chronic Obstructive Pulmonary Disease, 2011 [Internet]. [citado 2015 Fev 26]. Disponível em: <http://www.goldcopd.org/uploads/users/files/GOLD_Report_2011_Feb21.pdf.>
5. Rabe KF, Hurd S, Anzueto A, Barnes PJ, Buist SA, Calverley P, Fukuchi Y, Jenkins C, Rodriguez-Roisin R, van Weel C, Zielinski J; Global Initiative for Chronic Obstructive Lung Disease. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease: GOLD executive summary. *Am J Respir Crit Care Med*. 2007;176(6):532-55. Review.
6. Troosters T, Casaburi R, Gosselink R, Decramer M. Pulmonary rehabilitation in chronic obstructive pulmonary disease. *Am J Respir Crit Care Med*. 2005;172(1):19-38. Review.
7. Maia EC, Pinheiro NA, Silva SC, Barreto Filho FS, Navarro F, Oliveira Junior MR. Protocolos clínicos de reabilitação pulmonar em pacientes com DPOC. *Saúde Rev*. 2012;12(32):55-67.
8. Castro ED, Lima EM, Brunello MI. Atividades humanas e terapia ocupacional. In: de Carlo MM, Bartolotti CC. *Terapia ocupacional no Brasil. Fundamentos e perspectivas*. São Paulo: Plexus; 2001. p. 41-59.
9. Silva AO, Batalha EC, Pinto TM, Silva CF, Pereira JR, Nascimento VL, et al. Estratégias de socialização: a forma mais eficaz para a integração entre indivíduo e organização. Simpósio de Excelência em Gestão e Tecnologia [Internet]. Rio de Janeiro, Brasil [citado 2014 Jul]. Disponível em: http://www.aedb.br/seget/arquivos/artigos08/584_Estrategias%20de%20Socializacao.pdf
10. British Thoracic Society Standards of Care Subcommittee on Pulmonary Rehabilitation. Pulmonary rehabilitation. *BTS Statement. Thorax*. 2001;56(11):827-34. Review.
11. Neder JA, Nery LE, Filha SP, Ferreira IM, Jardim JR. Reabilitação pulmonar: fatores relacionados ao ganho aeróbio de pacientes com DPOC. *J Bras Pneumol*. 1997;23(3):115-23.
12. Dini GM, Quaresma MR, Ferreira IM. Adaptação cultural e validação da versão brasileira da escala de auto-estima de Rosenberg. *Rev Soc Bras Cir Plást*. 2004;19(1):41-52.
13. Lima EM, Okuma DG, Pastore MN. Atividade, ocupação, fazer e ação: a discussão dos termos e dos campos das atividades humanas na Terapia Ocupacional brasileira. *Cad Ter Ocup*. 2013;21(2):243-54.
14. Mosquera JJ, Stoubäss CD. Auto-imagem, auto-estima e auto-realização: qualidade de vida na universidade. *Psicologia, Saúde e Doenças*. 2006;7(1):83-8.
15. Steglich LA. Terceira idade, aposentadoria, autoimagem e autoestima [dissertação]. Porto Alegre: Universidade Federal do Rio Grande do Sul; 1978.
16. Safons MP. Contribuições da atividade física para a melhoria da auto-imagem e auto-estima de idosos. *Rev Digital [Internet]*. 2000 [citado 2014 Out];5(22): [cerca de 4 telas]. Disponível em: www.efdeportes.com/efd22/idosos.htm
17. Mendes AR, Dohms KP, Lettinin C, Zacharias J, Mosquera JJ, Stobäus CD. Autoimagem, autoestima e autoconceito: contribuições pessoais e profissionais na docência [Internet]. In: IX ANPEDSUL Seminário de Pesquisa em Educação da Região Sul 2012. [citado 2014 Jun 18]. Disponível em: <http://www.uces.br/etc/conferencias/index.php/anpedsul/9anpedsul/paper/viewFile/724/374>
18. Santos PJ, Maia J. Análise factorial confirmatória e validação preliminar de uma versão portuguesa da escala de auto-estima de Rosenberg. *Psicologia: Teoria, Investigação e Prática*. 2003;2:253-68.
19. Gaspari JC, Schwartz GM. O idoso e a resignificação emocional do lazer. *Psic Teor e Pesq Brasília*. 2005;21(1):069-076.
20. Guedes MA, Guedes HM, Almeida ME. Efeito da prática de trabalhos manuais sobre a autoimagem de idosos. *Rev Bras Geriatr Gerontol*. 2011;14(4):731-42.
21. Güell R, Resquetti V, Sangenis M, Morante F, Martorell B, Casan P, et al. Impact of pulmonary rehabilitation on psychosocial morbidity in patients with severe COPD. *Chest*. 2006; 129(4):899-904. Erratum in: *Chest*. 2007;132(2):738.
22. Brasília (DF). Estatuto do idoso: Lei Federal nº 10.741, de 1 de outubro de 2003. Secretaria Especial dos Direitos Humanos; 2004.
23. Balestra CM. A imagem corporal de idosos praticantes e não praticantes de atividades físicas [dissertação]. Campinas (SP): Universidade Estadual de Campinas; 2002.
24. Monteiro PP, editor. *Envelhecer – Histórias Encontros Transformações*. Belo Horizonte: Autêntica; 2001.
25. Fraquelli AA. Relação entre auto-estima, auto-imagem e qualidade de vida em idosos participantes de uma oficina de inclusão digital. [dissertação]. Porto Alegre (RS): Pontifícia Universidade Católica do Rio Grande do Sul; 2008.