

# Musical practice to improve the quality of life in older people

## Abstract

The work that is presented, collects a small sample of older people who participated in a choral group, whose activity was interrupted by covid19. The activities of this group gradually recovered, as the contagions decreased. A series of tests were carried out on a small sample after having resumed musical activity, during the month of March 2022. After the significant increase in infections at the end of December 2022, musical activities were paralyzed and it was measured again with the same tests to the small participating sample in January 2022. The tests used were the WHOQOL-B (Quality of Life Test of the World Health Organization), HADS (Hospital Anxiety and Depression Scale) and the EAR (Scale of Rosenberg's self-esteem). Part of the results obtained are published, highlighting the importance that musical practice had regarding psychological health and interpersonal relationships.

**Keywords:** music, quality of life, adults, mental health

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**Ana Mercedes Vernia Carrasco**

Department of Education and Specifics didactics, University of Jaume I, Spain

**Correspondence:** Ana Mercedes Vernia Carrasco, Department of Education and Specifics didactics, University of Jaume I, Spain, Tel 61 6200681, Email verni@edu.uji.es

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## Introduction

During the pandemic caused by covid-19 and at a time when infections were increasing, the quality of life was affected. Different studies, as well as statements by doctors and experts, also expressed the relationship with mental, physical and psychological health, such as the one provided by Gómez Conesa<sup>1</sup> or the report of the World Health Organization.<sup>2</sup> Some of the data collected by the CIS (Center for Sociological Research), the population has seen how the pandemic affected their mental health, highlighting fatigue, apathy and demotivation.<sup>3</sup> Older people especially, point out Buitrago Ramírez, Ciurana Misol, Fernández Alonso and Tizón García,<sup>4</sup> have seen their physical and mental health affected by covid-19. Although the cognitive repercussions produced by social and affective isolation are not yet known, the lack of social contact has had a negative impact on health.

An alternative to improve quality of life and mental health is music therapy, as shown in the study by Centella-Centeno,<sup>5</sup> restoring psychological, emotional and social health in people with some type of dementia, anxiety, schizophrenia and depression. In this line, research such as that of Duharte Gómez, Silvia, Carmen Furones Ramírez and Luis R. Zequeira Rivero<sup>6</sup> Teixeira-Machado, Mario and Mari<sup>7</sup> show that dance is a resource for improving the quality of life of the elderly. Likewise, Vernia,<sup>8</sup> in her research work, combines music and corporal expression to improve the quality of life.

In the work that is presented, it was verified how music and musicians and artists in general, played a determining role in this quality of life and health. This study is based on the experience of a group of older people who saw how their musical practice activity was paralyzed at times, due to the pandemic. Although the sessions could be resumed when the infections dropped, they had to be radically paralyzed when they increased drastically in their town. The research was carried out on a small sample in which the impact of active musical practice on some variables was assessed and during a period of instability in the restrictions caused by the pandemic. To collect the information, the WHOQOL-B (World Health Organization Quality of Life Test), the HADS (Hospital Anxiety and Depression Scale) and the EAR (Rosenberg Self-Esteem Scale) were used. The results showed that the group of participants returned to musical activities

with relatively high parameters that influence quality of life. The return to confinement meant a decrease in the values analyzed, which concludes in the need to plan alternatives that allow the elderly to continue their routine activities and, on the other hand, the importance of this type of activity to not only maintain, but improve the quality of life.

## Hypothesis

H1. Musical practice can help improve quality of life.

H2. People who interrupt their musical activity can see their quality of life decrease.

## Theoretical framework

We already find a history of musical projects that combine body and music to improve the quality of life of the elderly. Works such as that of Duharte Gómez, Silvia, Carmen Furones Ramírez and Luis R. Zequeira Rivero,<sup>6</sup> show the impact of dance, through the Saanabanda project, which combines Cuban dance steps with physical education exercises. In this research it was shown that the participants, that the program of musical activities improved the health of the participants.

Also Teixeira-Machado, Mario and Mari,<sup>7</sup> examined 1071 studies and of these eight studies were included in the review. Structural changes included increased hippocampal volume, gray matter volume in the left precentral and parahippocampal gyrus, and white matter integrity. Functional changes included alterations in cognitive function such as a significant improvement in memory, attention, body balance, among others. The study concludes by showing that the practice of dance improves neuroplasticity.

The research of Pizón and Moreno<sup>9</sup> should be taken into account, they show that physical activity is effective in promoting brain plasticity in aging. The conclusions reached by these authors, through a documentary review, is that physical exercise can have a positive impact on brain function.

On the other hand, it is important to highlight the research by Vernia-Carrasco,<sup>8</sup> regarding the impact that the arts in general and music in particular have on improving people's quality of life.

## Evaluations for quality of life

Considering the absence of a quality of life instrument with a cross-cultural approach, the World Health Organization developed a unique methodology to create it. Initially, the World Health Organization Quality of Life instrument (WHOQOL-100) was developed, with one hundred questions. The need for a short instrument, explains Pido de Almeida Fleck,<sup>10</sup> to be used in extensive epidemiological studies led the WHO to develop a short version of 26 questions (WHOQOL-bref).

To globally measure self-esteem, the Rosenberg scale<sup>11</sup> is the most widely used. With ten items aimed at knowing the feelings of respect and acceptance of oneself, this instrument proposes half of the questions with positive statements and the other half with negative statements.<sup>12</sup>

Although the Hospital Anxiety and Depression Scale (HAD) is a widely used instrument to measure psychological disorders in cancer patients, it can be applied in other contexts or complicated situations, such as in pandemic situations. Terol-Cantero, Cabrera-Perona, and Martín-Aragón,<sup>13</sup> assure that this scale is a very common instrument, endorsing its psychometric properties. The research carried out by these authors concluded that the HAD scale is adequate in different groups.

## Methodology

Different tools were used to assess quality of life, anxiety and depression, as well as self-esteem.

### Process

The evaluation tests were passed in March, after starting the music sessions. 6 participants of the “Music for Life” project were selected randomly. The tests were passed again in January, after a complicated situation for the project since all activities had to be suspended at the end of December, due to the large increase in covid-19 infections in the population where the project will be developed.

### Sample

It is a small sample, of n=6, but significant to respond to the objectives and the proposed hypothesis.

### Instruments

The instruments used were, to measure the quality of life, the WHOQOL-B (The WHOQOL is an evaluation of the quality of life developed by the WHOQOL Group with fifteen international field centers, simultaneously). The HADS scale (Hospital Anxiety and Depression Scale), in its Spanish version, and the Rosenberg Self-esteem Scale (EAR), used in the area of psychology to measure self-esteem quickly and reliably.<sup>12</sup>

## Results and discussion

The data showed that the participants lost physical and mental health, as well as decreased value in interpersonal relationships or their satisfaction in relation to the environment.

### Statistical differences between pre and post

The data have shown the significant deterioration in terms of quality of life, taking into account mental health and interpersonal relationships. The self-esteem scale also reflected a decrease in this parameter. Figure 1 and Figure 2 are shown as an example of the results of the participating sample, since all of them responded in the same way, that is, all the variables decreased in the second assessment, compared to the first.

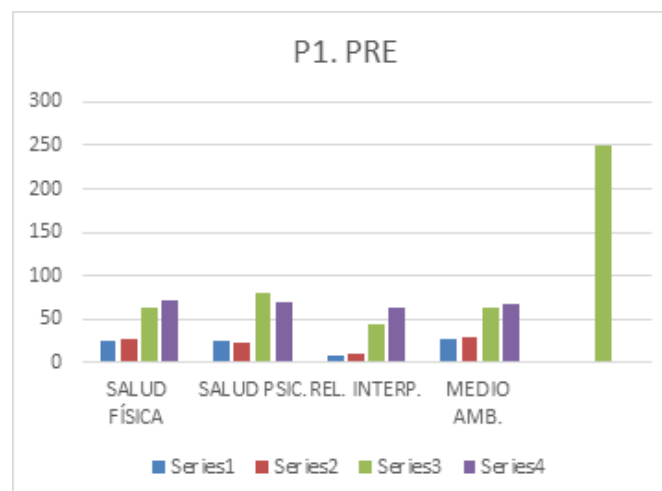


Figure 1 Participant 1 baseline test result.

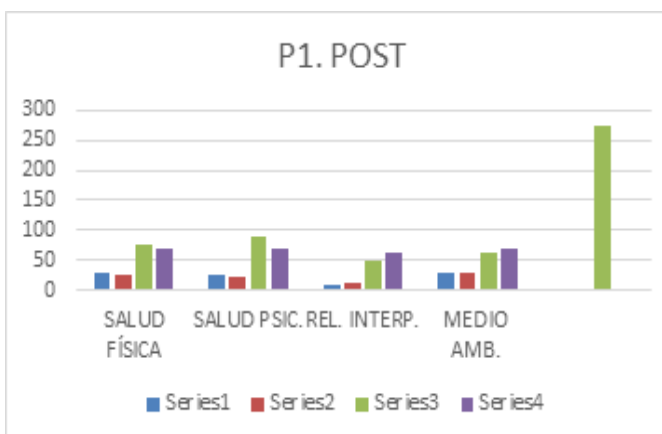


Figure 2 Result of the test at the end of the participant 1.

Only one sample is attached, however, making the comparison with the rest of the participants, all showed a decrease in the variables that were valued.

The data is still very weak because it is an experimental investigation in the first phase, therefore, we must still be cautious both in the discussion and in the results. One must be prudent, until more samples can be certified and therefore more reliable.

## Conclusion

It can be said that the conclusions are relevant, highlighting that the participants who were part of the Music for Life project were participating in the musical activities when they were assessed for the first time. The following assessment was carried out after 9 months, coinciding with the return to activities and after having been confined due to a rebound in coronavirus cases.

The results indicate that all the variables analyzed decreased, in all the participants. Although it is true that in some participants it was accentuated more than in others, this response leads us to think that the active music sessions improved both physical and psychological health, and especially interpersonal relationships.

As a final conclusion, it is considered that music should be present in the lives of all people, but especially in the elderly. In this sense, it is proposed to continue investigating, emphasizing the hypothesis that music can stop cognitive deterioration and improve quality of life.<sup>14</sup>

## Acknowledgements

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## Conflicts of interest

The authors declare they have no conflicts of interest that are directly or indirectly related to the research.

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