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Exploring Music Consumption by Nursing Students and Their Disposition to Apply Music Therapy in the Future Professional Practice

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Abstract: The objectives of this study were: 1) to investigate if nursing students use of music to manage of health problems as pain, emotional or relationship problems; 2) to analyze if they would be willing to use music therapy in the future and to add education about music therapy in nursing programs in a University from southeast Spain.

The study was carried out among students of Nursing Degree (2^o year enrolled in the compulsory subject of Palliative Care -2016/2017 and 2017/2018-). The questionnaire was validated, self-administered and completed anonymously. It was composed of 10 questions about use of music to alleviate discomfort or as a motivating element and if they would apply music therapy in their work. Statistical analysis: Descriptive and Student's t test.

A total of 339 students fully completed questionnaires. Response rate: 91%. The majority of them would include a subject on music therapy in the degree studies in Nursing (95%; n=323). Of respondents, 97% (n=328) had used music to alleviate the discomfort in sadness (35%), discouragement (24%) or stress (22%). Of students, 96% (n=325) had used the music as a motivating or inspiring element: to motivate itself (50%); to study (43%) or playing sport (37%). The survey revealed that 96% of them would be willing to use music therapy in the future as healthcare personnel.

To conclude, music could help nursing students gain stability during university life. Therefore, it would be necessary to include it as a part of the nursing course to improve their integrated abilities.

Keywords: Music Therapy, Nursing, Nursing Degree, Healthcare personnel, Discomfort.

INTRODUCTION

Music has long been thought of as a way to affect behavior and health and serve as a healing influence. In Ancient Greece, music was believed to have a mathematical relationship with the Cosmos and Greek philosophers thought that music could serve a therapeutic purpose (Harvey 1980). Patients in manic states were often instructed to listen to the calming music of the flute, while those suffering from depression were prescribed listening to dulcimer music (Dobrztnska et al. 2006). In many primitive cultures, music was considered an important part of everyday life (i.e. dance, hunt, death, at birth, for healing). Any activity that required assistance from the gods made use of specific songs that were believed to connect the world with the preternatural (Gfeller 2002).

Music therapy is a rapidly growing field in which music interventions are used to accomplish goals through a therapeutic relationship. Evidence shows that music therapy can help people to express their feelings, manage stress, promote wellness, alleviate pain, enhance memory and improve communication (McConnell and Porter 2017; Fakhoury et al. 2017; Barnish et al. 2016). Music is a shared language by which all people can easily and conveniently communicate with each other. Music therapy is a simple and easily accessible treatment because its two main components, i.e. rhythm and melody, are among the innate

qualities of human beings (Sheibani Tazraji et al. 2010). Music is used to manage a wide range of health problems from pain to emotional and relationship problems (Hilliard 2001; Chan et al. 2011). Moreover, it plays a significant role in maintaining cognitive, physical and emotional health. Also it can protect the individual against sorrow, grief, loneliness, and feeling of guilt and can be used to manage depressed people's unpleasant feelings and loneliness (Sheibani Tazraji et al. 2010; Choi 2008).

It is well recognized in nursing education that the profession is demanding not only cognitively but also emotionally (Buckner and Leach-Fuller 2001). Nurses use emotional intelligence, defined as personal competence (self-management) and social competence (capacity for relating to others) to provide care to patients and family members. In general, nursing curricula, while teaching cognitive and psychomotor competence, fail to allow for development of these personal and social competencies so essential to practice (Bellack 1999). A study shows that nurses know about complementary therapies such as music therapy but lacked specific knowledge about how to incorporate them into a plan of patient care (Shorofi and Arbon 2010). Knowledge deficit may be related to the lack of education about complementary therapies in most nursing programs and information related to music therapy was not commonly part of nursing curricula (Halcon et al. 2003; Sung et al. 2011).

There are not studies on the use of music among nursing students of Spanish universities. Only some studies about musculoskeletal pain and variation in posture quality across musical instruments and its impact during performances among music conservatory students (Rodríguez-Romero et al. 2016; Blanco-Piñero et al. 2018).

The objectives of this study are: a) to investigate if nursing students use of music to manage of health problems as pain, emotional or relationship problems in a University form southeast Spain; and b) to analyze if nursing students would be willing to use music therapy in the future and to add education about music therapy in nursing programs.

MATERIAL AND METHODS

Population Study and Sample Selection: The study was carried out among students of Nursing Degree of 2^o year enrolled in the compulsory subject of Palliative Care from a Spanish university in the Southeast. It was carried out during the academic courses 2016/2017 and 2017/2018.

Our degree divides the seminar groups in S1, S2, S3 and S4. Each "S" group consists of approximately 42 students. A seminar was held for each group on "*Music therapy in Palliative Care*" at the University of Murcia on May 2017 and four other seminars on April 2018 at the same place. All of them taught by an expert in music therapy, musicologist, teacher of music education and a nursing teacher.

Planning: The structure and the administered information of the seminar were: A first theoretical part, where the musicologist explained the history of music therapy, its different applications, the relationship with palliative care and research about it. A second part, where students were surveyed through the Virtual Classroom Platform, in order to know their perception about music therapy and if they used music in their day to day.

Questionnaire: The questionnaire was validated in our region through a pilot study in the beginning of academic course 2015/2016 (López-Núñez et al. 2019). This questionnaire was self-administered and completed anonymously. It was composed of 10 questions: 1st and 2nd: Questions to assess the interest to include a music therapy subject in the Degree of Nursing and if so, what type: "optional or compulsory". 3rd and 4th: Questions about the use of music to alleviate the discomfort, and if so, in which situations. 5th and 6th: Questions about the use of music as a motivating or inspiring element, and if so, in which situations. 7th and 8th: Questions about if they would apply music therapy in their work and if they think it would contribute to the good death of patients in palliative care. 9th and 10th: Questions about whether interdisciplinarity between nursing and other disciplines such as dance, music or sports enrich learning in academic formation.

Statistical Analysis: A descriptive statistical analysis and Student's t test together with the χ^2 test. Differences were considered significant when $P < 0.05$.

RESULTS

A total of 339 students (339 out of 372 students enrolled in the academic courses 2016/2017 and 2017/2018) fully completed and returned their questionnaires using the Virtual Classroom Platform, giving a response rate of 91%.

The majority of the respondents would include a subject on music therapy in the degree studies in Nursing (95%; $n=323$), whereas the remaining 5% ($n=104$) would not. The survey revealed that 18% ($n=61$) of student would prefer it to be a compulsory subject and 80% ($n=272$) of them would prefer it to be an optional subject.

With respect to the use of music, 97% ($n=328$) of students had used music some time to alleviate the discomfort. The most frequent situations were sadness (35%; $n=117$), discouragement (24%; $n=82$), stress (22%; $n=74$), demotivation (17%; $n=59$), pain (16%; $n=55$), anger (10%; $n=35$), overwhelm (9%; $n=32$) and lovesickness (8%; $n=28$), among others.

In relation to the use of music as a motivating or inspiring element, 96% ($n=325$) of students had used the music for it. Music was used mostly to motivate itself (50%; $n=169$); to study (43%; $n=144$); playing sport (37%; $n=124$); before a party (12%; $n=43$); before an exam (11%; $n=36$); to clean at home (9%; $n=29$) and to concentrate (6%; $n=19$), among others.

The survey revealed that 96% ($n=326$) of the respondents would be willing to use music therapy in their future professional activity as healthcare personnel. Most of the respondents (99%) stated that music therapy would contribute to a good death in a patient receiving palliative care.

Moreover, 97% ($n=330$) of students stated that incorporating other disciplines such as music, dance, sports and art would have been very helpful in their training and it would have enriched the learning in the academic formation. No significant differences were found with respect to age ($p=0.146$) and academic course ($p=0.105$). However, female students would be more willing to use music therapy in their future professional than males (80% versus 43%; $p < 0.021$).

DISCUSSION

Nursing students from a Spanish University showed a very positive attitude to include a subject on music therapy in the studies of Nursing Degree. Some authors have found that many nurses were aware of complementary therapies such as music therapy but lacked specific knowledge about how to incorporate them into a plan of patient care (Shorofi and Arbon 2010). Knowledge deficit may be related to the lack of education about complementary therapies in most nursing programs and information related to music therapy was not commonly part of nursing curricula (Halcon et al. 2003; Sung et al. 2011). Shorofi et al. have shown that nurses with high levels of knowledge about complementary therapies had positive attitudes regarding the use of these therapies. They also noted that nurses with less clinical experience and younger nurses are more likely to utilize complementary and alternative therapies in their practice (Shorofi and Arbon

2010). Moreover, although other results suggest that gender did not contribute significantly to nurses' intention to use music therapy (Lok 2013), in our study female students would be more willing to use music therapy in their future professional.

The use of music listening as an effective, noninvasive intervention designed to assist nurses in creating a healing environment to promote health and well-being. Patients frequently experience anxiety and pain in the clinical setting. Music is a well-established complementary therapy that has been shown to effectively decrease both anxiety and pain in clinical practice. Yet, it is not commonly used in the practice setting (Lok 2013). Music has demonstrated effectiveness in reducing pain, decreasing anxiety, and increasing relaxation. In addition, music has been used as a process to distract persons from unpleasant sensations and empower them with the ability to heal from within. As nurses develop practice patterns that are evidence based, the use of music listening could become an integral nursing intervention (McCaffrey and Locsin 2002). A study found that music can be integrated into a gerontological nursing course to enhance students' motivation to learn, empathize, and approach older adults (Lin et al. 2016). All these results suggest that music could be integrated in Nursing Studies Degree and students would be perfect to start the contact with these therapies.

Students are the creators of each country's future and constitute a considerable part of young adults (Moasheri et al. 2016). Factors such as education-related pressures and burdens, high levels of stress, unfamiliarity with academic environment, separation from families, lack of recreational facilities, and disinterest in their fields of study can cause mental disorders (such as depression) in students, negatively affecting their academic achievements (Baghiani Moghaddam et al. 2012). A Spanish study revealed that second year nursing students showed poorer health, with more somatic anxiety, more psychic anxiety and more common symptoms than students in other years (Jimenez et al. 2010). These results are consistent with other study that also showed students to be more susceptible to stress from clinical practice in their second year (Lo 2002). Nursing students suffer from a great deal of anxiety, which could interfere with both classroom and clinical performance. Some students suffered from severe anxiety, which affected their academic performance and resulted in low grades and high dropout rates (Sharif and Armitage 2004). The effects of music on nursing students have been examined and the majority of the studies have evaluated its effects on anxiety and physiological outcomes (Sung et al. 2011; Lai et al. 2008). Group-based western music listening effectively decreased examination anxiety, state anxiety and heart rate among a group of Taiwanese nursing students (Lai et al. 2008). Sung et al. found that Taiwanese nursing students had a significant reduction in their subjective state anxiety level and heart rate and a significant increase in high frequency heart rate variability, which indicated that the parasympathetic nervous system was activated and that the nursing students were in a relaxed state after listening to 30 min of slow rhythm eastern style relaxation music (Sung et al. 2011). In our study, the use of music to alleviate

discomfort was used by student in sadness (35%), discouragement (24%), stress (22%) or demotivation (17%).

Music can be used as a distraction from existing stress or discomfort (Robb 2003). The results of this study show that 97% of students had used music some time to alleviate the discomfort and 96% of students had used music as a motivating or inspiring element. Adolescents and young students often listen to various types of music as a means of social interaction with peers and to express feelings and emotions, but some types of music, such as metal music, might cause negative emotions (Labbé et al. 2007) and are associated with higher depression levels in adolescent girls (Miranda and Claes 2009). Therefore, careful selection of the type of music and consideration of the cultural aspects are important. Developing a knowledge base on music therapy during undergraduate nursing education is important and helps student nurses to proceed from beginner status to expert status in nursing graduation. Then, student nurses may be able to determinate which type of music would be more appropriate for patients and for themselves and offer recommendations accordingly (Oztekin et al. 2007).

Many nursing researchers have considered including education on alternative complementary therapies as music therapy in the nursing curriculum (Oztekin et al. 2007; Mei-Ying et al. 2004; Dutta et al. 2003). Students reported the importance of curricular change for fully integrating alternative therapies in nursing programs at all levels. Also, nursing students have favorable attitudes towards the integration of music therapy within the nursing curriculum (Halcon et al. 2003). Music can be a cost-effective resource in developing interventions to reduce stress and improve well-being (Ploukou and Panagopoulou 2018). The field of nursing requires high medical skill and ethical thinking that is rooted in scientific knowledge, as well as decision-making skills. In order to produce nurses with high intellectual level and skill, it is necessary to attempt to change the nursing education curriculum and environment.

Finally, this study shows that 96% of the respondents would be willing to use music therapy in their future professional activity and most of the students (99%) believed that music therapy would contribute to a good death in a patient receiving palliative care. Communication between nursing students, nursing instructors, music therapists and other health care professionals should be initiated for a better understanding of patients' choices with regard to treatment options (Oztekin et al. 2007).

To conclude, the findings of this study indicate that music could help nursing students gain stability during university life. Most of them have used the music to decrease stress, to improve self-regard and confidence. Also, students would include a subject on music therapy in the degree studies in Nursing and they would be willing to use music therapy in their future professional activity. To develop their intellectual ability and personality as a part of their nursing education, nursing students need opportunities to experience diverse cultures and activities. Indeed, the educational system needs to support the development of the overall abilities of nursing professionals. Therefore, it is necessary

to include it as a part of the nursing course to improve the integrated abilities of nursing students.

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