Original Article

ISME INTERNATIONAL SOCIETY FOR MUSIC EDUCATION

International Journal of Music Education
1–11

DOI: 10.1177/0255761419853634
journals.sagepub.com/home/ijm
SAGE

Beyond music: Emotional skills and its development in young adults in choirs and bands

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Abstract

Latest studies point out the importance of emotional competencies in young people's education. Music is closely linked to people's personal development and the evidence suggests that there are differences in young people who participate in group music-making activities and young people who do not. In the present study we analysed the socioemotional profile of sample of Spanish adolescent musicians who sang in choirs or played in bands. A total of 660 adolescent musicians and 655 non-musicians participated in the study, which evaluated emotional competencies, life satisfaction, motivation to study and capacity of leadership. At the same time, an ad hoc questionnaire was also administered to the musicians to obtain their academic musical profile. The results of the study show statistically significant differences between musicians and non-musicians in all measured variables, and suggest that, in line with previous research, belonging to a musical ensemble, such as choirs and bands, is related with the development of many skills as well as self-perception. Furthermore, it promotes the development of socioemotional competencies, motivation and leadership.

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Keywords
Music, emotional competencies, choir, band

During recent decades research in education has focused less on competencies related to logic abilities and abstract intelligence and more on a renewed interest in emotional education and emotional competences (e.g. Filella, Cabello, Pérez-Escoda, & Ros-Morente, 2016; Mayer, Roberts, & Barsade, 2008). Emotional education has become an innovative educational tool that provides answers to all those educational and social needs that are rarely addressed in ordinary subjects (Bisquerra, 2006). Emotional education is viewed as a multifactorial process which is based on the teaching and acquisition of certain competences. In fact, numerous studies observe that self-esteem or emotional skills are crucial to any explanation of students' emotional state and learning process (Bong, Cho, Ahn, & Kim, 2012; Spinrad et al., 2004).

Empirical evidence of the benefits of emotional education programmes has been widely accepted in the literature, especially when these interventions are well implemented and evaluated (Björklund et al., 2014; Pears, Fisher, & Bronz, 2007; Pérez-González, 2008, among others). Longitudinal studies, like the one carried out by Duncan et al. (2007), have shown that the successful development of socioemotional skills in schools can predict important mediators of learning, such as self-esteem, adaptation in schools, participation in class, motivation towards learning, and satisfactory relationships with peers and teachers. However, despite all this proof, young people's own perception of these skills remains varied yet limited (Bisquerra & Filella, 2018).

Having socioemotional skills and competencies is particularly important during adolescence, a pivotal period in life when emotional variables and the developmental task of identity formation come to the fore (Jones & Deutsch, 2013; Parker, 2018). From a traditional socioeconomical standpoint, adolescence has been envisaged as a dual process of forming one's personal identity and establishing one's personality, which is influenced by external factors such as relationships with peers (Arnett, 2002; Massot, 2003). These factors play an important role in the development of the individuals and their transition to adulthood. Additionally, self-esteem and self-perception are closely inter-related in the transition, which involves other psychological factors such as anxiety, general psychological state and, once more, socioemotional competences (Filella et al., 2016). All in all, the evidence suggests that the processes which take place during adolescence and that work in synergy lead to personal changes that are important because they will remain a permanent part of adult life (Bar-On, 2006).

It is commonly accepted that music and musicality can play a vital role during this stage of life. The study of exposure to music during adolescence has gained considerable ground since the emergence of youth culture in the 20th century. From the moment in which this culture became an object of study, it has been repeatedly proven that musicality can greatly improve and enhance emotional expressivity and communication (Kokotsaki & Hallam, 2007; Merriam, 1992). Since the 1980s, in the domain of music psychology, socioemotional variables have been considered key to understanding the functions of music (North, Hargreaves, & O'Neill, 2000). Authors such as Juslin and Sloboda (2010) have even claimed that music can be used as a tool to control the valence and arousal of any emotional experience. In fact, it has been proven that adolescents use music to achieve certain emotional experiences, or to enhance or minimise their effect (Miranda & Claes, 2009; Saarikallio & Erkkilä, 2007). The link between emotional competences and music is also part of the learning process, since, as many authors have argued, music constitutes an educational resource (García, del Olmo, & Gutiérrez-Rivas, 2014; Hallam & Creech, 2010; Schellenberg, 2016). Students can learn music as a school subject, but equally importantly, music itself

also constitutes a vehicle to enhance learning. This is seen in how music can be used to improve emotional intelligence and other cognitive processes such as creativity, language or mathematics, among others (Antonietti & Colombo, 2014; Gouzouasis, Guhn, & Kishor, 2007; Zatorre, 2005).

There is a long tradition around the world of making music in bands and in choirs, for adults, children and adolescents, and various studies describe the effects of been part of such ensembles (Cooper, 2017; Gouzouasis & Henderson, 2012; Miksza, 2010). The Spanish regions of Valencia and Catalonia have long traditions of music-making, the former in bands and the latter in choirs. At the present moment, there are more than 500 bands in Valencia (official census of the Federation of Musical Societies Federation from of the Community of Valencia, 2018) and over 900 choirs in Catalonia (figures from the Catalan choir confederation the Moviment Coral Català; Catalan Choir Movement, 2018). Because of this, in both regions a large number of young people between the ages of 10 and 18 have the opportunity to learn music and either play an instrument or sing in the young person's section of one of these musical ensembles. Empirical research has linked these kind of musical group participation to numerous skills aiding social and personal fulfilment and variables related to emotional skills such as psychosocial well-being (Mellor, 2013), an enhanced sense of worthiness (Colson, 2012), teamwork and cooperation skills, self-confidence and social skills development (Kokotsaki & Hallam, 2007).

The functions and benefits of music in adolescents' everyday life are so clear that we can argue that when young people acquire certain skills in music – especially emotional skills – this helps them strengthen competencies in other areas of life. For instance, when through making music they acquire greater ability in expressing their emotions, at the same time they reinforce their ability in social relationships. Hargreaves and North defended this idea as early as in 1999 (see Figure 1), and the literature to date suggests that music improves competencies that are interrelated and that constantly benefit from one another.

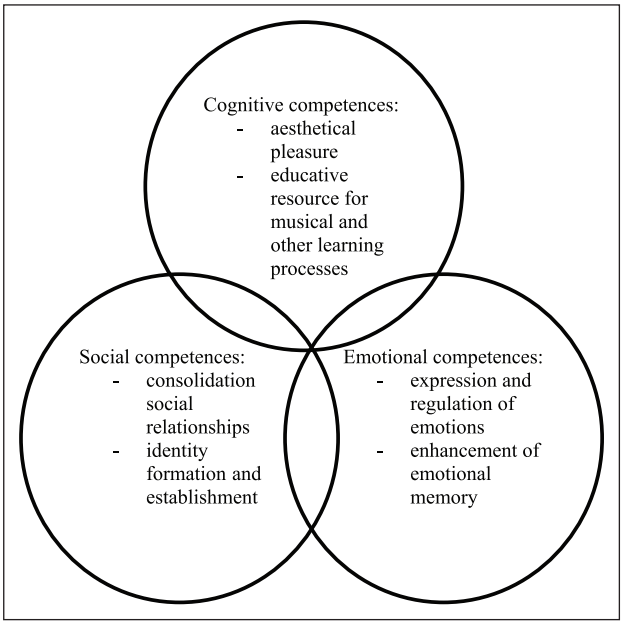

Figure 1. Competences and functions of music during adolescence (adapted from Hargreaves & North, 1999).

In addition, we should remember that mean socioemotional aspects (such as leadership, motivation, satisfaction with life or emotional competences) are present in each of the three main domains in which the functions of music are important: the cognitive, emotional and social domains (Hargreaves & North, 1999). In this sense, choirs and bands provide an ideal context for developing individual and group skills.

Researchers need to establish whether adolescents who make music acquire socioemotional competencies in a different measure to adolescents who are not involved in such activities. And, if differences do exist, we should also establish whether the nature and degree of acquisition varies from one kind of musical activity to another. In this study, to address these questions, we analysed the socioemotional profile of a sample of Spanish adolescent musicians and non-musicians.

Methods

Participants

This study sampled two kinds of adolescent: musicians, meaning adolescents who played in bands or orchestras, or sang in choirs (the musicians sample); and non-musicians, meaning adolescents who were not involved in any kind of musical activity (the non-musicians or control sample). The subjects came from the Spanish regions of Valencia (musicians who played in bands or orchestras and non-musicians) and Catalonia (musicians who sang in choirs and non-musicians).

Musicians sample. This sample comprised a total of 660 adolescent musicians, of which 367 (55.6%) played in bands, and the other 293 (44.4%) sang in choirs. Of the 660, 237 (35.9%) were males while 423 (64.1%) were females. All were members of young person's ensembles, specifically 10 youth bands in Valencia and 10 choirs in Catalonia. The selection process for these adolescents was guided by an analysis of the census of existing groupings in the two regions, taking into account aspects such as geographical location and density of the population, number of members and years of existence. Although the sample was intended to be non-probabilistic, we endeavoured to make it representative by selecting individuals from the most traditionally visible types of musical ensembles (namely, choirs and bands or orchestras) so that our results might better reflect the reality of music-making in the regions chosen.

Non-musicians or control sample. The non-musicians or control sample was used in order to compare and contrast the results obtained in the musicians sample and it comprised a total of 655 participants: 260 (39.7%) were males while 395 (60.3%) were females. To ensure that both samples were similar, the non-musicians were taken from the same educational centres as the musicians, with the help of the teachers and school directors.

Instruments

The instruments used in this study included those listed below.

Emotional Development Questionnaire (QDE; López & Pérez-Escoda, 2014). This 48-item self-report instrument taps the principal concepts regarding emotional education suggested by the GROP (Research Group on Counselling in Psychopedagogy, hereafter GROP), (Bisquerra, 2000; Bisquerra & Pérez, 2007). It comprises five subscales which assess emotional awareness, emotion regulation, emotional autonomy, social competence and life competences. These competences are framed in the research carried out by GROP. A score for each subscale and a total score can be

extracted. Cronbach's alpha gave this instrument reliability values between 0.88 and 0.91, which is considered satisfactory.

Ad hoc protocol (survey). This was created by the team in order to assess the academic-musical profile of the musician sample, as well as the multiple variables that can influence the development of emotional competences (such as the subject's motivation to learn music, or the feelings experienced during learning). The protocol was created to address the lack of instruments assessing these aspects and consisted of a survey developed and validated with expert evaluation. Based on this evaluation, a second draft was administered as a pilot test to five members of youth bands or orchestras and five members of choirs, in order to correct minor errors and validate the reliability of all the questions. Cronbach's alpha gave this survey a reliability coefficient of 0.81. The final survey consisted of a total of 19 questions structured around three major dimensions: the personal dimension (age, gender and studies), the academic-musical dimension (music studies, experience, place of learning, etc.) and the socioemotional dimension (relationship with colleagues and director, feelings experienced, nervousness, etc.).

Satisfaction With Life Scale (SWLS; Diener, Emmons, Larsen, & Griffins, 1985). This self-informed five-item scale measures global cognitive judgements of one's life satisfaction using a 7-point Likert scale that ranges from 7 *agree* to 1 *strongly disagree*. Because of its satisfactory psychometric properties and factorial structure, it has become one of the most widely used scales among the scientific community with Cronbach's Alpha showing values ranging from 0.80 and 0.89 (Diener & González, 2011; Vazquez, Duque, & Hervás, 2013).

Academic Motivation Test (MOT; Sáez, 2008). This 25-item test evaluates adolescent's degree of predisposition and motivation towards their academic training using a three-point scale (*true, false* or *doubtful*). This enables researchers to obtain a total factor score. Motivation can be considered *high, moderate* or *low*. Psychometric properties were satisfying for the motivation factor in all of the studies carried out. The MOT showed a remarkably satisfactory internal consistency ($\alpha > 0.70$), with test–retest correlations over two months that indicated a good test–retest reliability (0.81).

Questionnaire of the Capacity of Leadership (LID; Ávila de Encío, 2012). This 15-item questionnaire was modelled after younger age versions of Cattell's renowned 16PF questionnaire and it evaluated each participant's leadership capacity using a five-point Likert scale (Catell & Catell, 2005; Porter & Cattell, 2002). The questionnaire has 15 phrases and rated with a Likert scale of five alternatives. The final score is the sum of all the answers given by the subject and each person can be qualified as: without leadership capacity, with initiative but without capacity of leadership, and with capacity for leadership. The LID showed satisfactory internal consistency ($\alpha > 0.70$), with test–retest correlations indicating a good test–retest reliability (0.83).

Before the results were analysed, the musicians' musical and socioemotional profile was assessed.

Procedure

The present study followed a non-experimental *ex post facto* methodology which was descriptive and causal-comparative. This design enables researchers not only to describe the variables included in a study, but also to compare the constructs and data, which in the case of our study was important for the emotional and musical variables.

The musician questionnaires were answered during a rehearsal, in paper format. In the non-musician (control) group, we applied the Google Docs protocol of questionnaires in 10 centres of secondary education located in the same towns where the musicians studied.

SPSS (Statistical Package for the Social Sciences, version 24.0) was used for the statistical analysis of the data, specifically for percentages, averages and standard deviation. It was also used for an analysis of variance (ANOVA) to contrast the musicians and non-musicians data and know if there were statistically significant differences between the two groups. Before running the statistical analysis, the Levene test was performed to establish the homogeneity of variances.

Results

As mentioned above, before the analysis of the results per se, the present study explored the musical and socioemotional profile of the participants in the musicians sample. Our first finding was that the average age at which they had initiated their musical studies was 6.36 ($SD = 2.54$). The musicians who played in bands or orchestras had an average of 3.90 years of experience ($SD = 2.24$) while for the musicians who sang in choirs that figure rose to 5.52 years ($SD = 3.26$).

Regarding the socioemotional dimension, a 10-point Likert scale was used to ask the participants about their opinions and feelings regarding the five socioemotional competences described by the Research Group in Psychopedagogical Orientation (GROP): Emotional Awareness, Emotion Regulation, Autonomy, Social Competence, Well-being. The results about the opinions of the students are described in Table 1.

Additionally, these competences were assessed with the Emotional Development Questionnaire (QDE; López, & Pérez-Escoda, 2014), which gave similar results to those described in the opinions and feelings of the participants themselves (see Table 2).

The average score obtained in the QDE, which slightly differed from the results obtained when asking participants about their opinions and feelings, showed that the participants' level of skills acquisition was moderate. Further study revealed that emotional awareness and well-being were the competencies the participants had consolidated most while the acquisition of autonomy and social competencies was less apparent.

In a variance analysis of the two samples, several differences appeared when the scores produced by the different instruments were compared (see Table 3).

As Table 3 shows, the musicians displayed a higher and statistically significant score in emotional competences than the non-musicians. They also showed a greater ability as leaders (or the potential to become leaders). Statistically, this was a highly significant difference between groups, as percentages of the Table 4 show.

Table 1. Results of the musicians' opinions and feelings about the five socioemotional competences described by GROP.

	χ	SD
Emotional Awareness	7.57	1.64
Emotion Regulation	7.95	1.62
Autonomy	7.77	1.39
Social Competence	7.93	1.37
Well-being	8.66	1.43
Total (n=660)	7.98	1.09

GROP: Research Group on Counselling in Psychopedagogy.

Table 2. Results of the Emotional Development Questionnaire on the five socioemotional competences between musicans and non-musicians, described by GROP.

	Musicians		Non-musicians	
	χ	SD	χ	SD
Emotional Awareness	8.13	0.85	5.27	0.86
Emotion Regulation	7.08	0.98	5.21	1.02
Autonomy	6.86	1.08	5.69	1.05
Social Competence	6.97	1.15	5.91	1.06
Well-being	7.97	0.87	6.52	0.83
Total (n=660+655)	7.37	0.78	6.05	0.70

GROP: Research Group on Counselling in Psychopedagogy.

Table 3. Results of the ANOVA analysis for the scores obtained by the groups of musicians and non-musicians for the tests Satisfaction with Life Scale (SWLS), Academic Motivation Test (MOT) and Questionnaire of the Capacity of Leadership (LID).

	Musicians M (SD)	Non-Musicians M (SD)	F	*p*	η^2
SWLS	42.1 (9.2)	35.2 (11.0)	435.492	0.001	0.299
MOT	29.8 (3.3)	23.7 (4.9)	188.975	0.001	0.156
LID	36.2 (6.4)	29.2 (8.6)	101.234	0.001	0.090

Table 4. Results of the Questionnaire on Leadership Capacity (LID) obtained by the groups of musicians and non-musicians.

	Musicians	Non-musicians
	%	%
High capacities	55.0	26.3
Moderate capacities	43.2	61.5
Low capacities	1.8	26.3
Total (n=660)	7.37	0.78

A similar pattern could be observed in the life satisfaction scores, where the musicians were notably happier with their lives. Finally, academic motivation also appeared to be much higher and statistically significant for the musicians than the non-musicians. Interestingly enough, working with a team, the culture of effort and the learning motivation are very important factors in music practice.

Discussion

The main aims of this study were to explore the socioemotional profiles of adolescents who were involved in musical activities and compare these with the profiles of adolescents who were not.

In all cases, the results showed that, in the variables measured, statistically significant differences exist between musicians and non-musicians. In the analysis conducted to measure the

socioemotional competences described by GROP (Emotional Awareness, Emotion Regulation, Autonomy, Social Competences, Well-being), the musicians showed an important level of socioemotional development and set of skills. The musicians scored highest in Emotional Awareness (see Table 2). This is consistent with previous findings, indicating that the logical order of learning for young people is, first, learning how to become aware of what they feel and, only later, becoming able to manage and regulate feelings (Filella et al., 2016). On the other hand, the musicians scored lowest in autonomy. Again, this result is consistent with the fact that, in comparison to other stages of life, adolescence is strongly associated with feelings related to anxiety, which in turn makes it more difficult for young people to properly regulate and ensure a proper level of autonomy until a certain degree of personality development has been reached (Byrne, 2000; Filella et al., 2016; Massot, 2003). In general, however, in all of the tests the musicians showed higher scores than the non-musicians, which is highly consistent with our hypothesis.

Regarding the comparison between musicians and non-musicians in terms of leadership skills, 55% of the musicians showed a high level of leadership capacity compared to only 26.3% of the non-musicians (see Table 4). This can be explained by the fact that participating in group music-making activities, in ensembles such as choirs and bands, strengthens abilities in areas such as effort, optimism, self-confidence, self-management and self-perception (e.g. Gouzouasis & Henderson, 2012; or Kokotsaki & Hallam, 2007). These skills are known to favour the development of socioemotional competences and leadership (e.g. Tenenbaum et al., 2004). This same fact accounts for level of academic motivation, which in the present study was significantly higher in the musicians, who were clearly predisposed to academic activities.

Finally, the musicians expressed greater satisfaction with life than the non-musicians did. Once again, statistically these differences became highly significant, indicating that the shared practice of music during adolescence may constitute an effective and satisfying leisure activity (as well as a contribution from the arts to well-being). Furthermore, it helps the individual make a positive evaluation of the activity itself and their level of satisfaction with life (Calderón-Garrido, Martín-Piñol, Gustems-Carnicer & Portela-Fontán, 2018; Croom, 2015).

On the other hand, although the study produced interesting results there were also certain limitations. First, we were unable to fully address the considerable plurality and heterogeneity of the community of adolescent musicians in the two geographical regions in question. Instead, our research focused on the musical ensembles for young people that were most typical of these regions; namely, bands or orchestras, and choirs. Future studies should therefore address the heterogeneity of music profiles in this population. Second, although the process underlying the development of emotional competencies is complex and multifactorial, our study chose to select only the most representative aspects, in line with previous studies and empirical results. Future investigations should study the interactions and multifactorial effects of different variables in order to more fully establish those variables and relationships that account for the development of emotional competencies development during adolescence.

In conclusion, our findings clearly indicate that adolescents who participate in group music-making activities display a higher level of development of socioemotional competences. This suggests that music can become an important resource to help individuals acquire and strengthen their emotional and social skills in moments of the life span that originally have a different approach and aspects than other moments in life. In short, music may have valuable uses as a tool that can be effectively used to enhance young people's emotional understanding, well-being and general health.

Funding

The present work is the partial result of a doctoral thesis and was funded by ARCE grants promoted by the University of Barcelona (2015 and 2016).

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