






Review

Promoting Prosociality and Health through Musical Interventions with Groups at Risk of Social Exclusion: A Systematic Review

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Citation: Martí-Vilar, M.; Villalonga-Aragón, M.; González-Sala, F.; Hidalgo-Fuentes, S.; Merino-Soto, C.; Toledano-Toledano, F. Promoting Prosociality and Health through Musical Interventions with Groups at Risk of Social Exclusion: A Systematic Review. *Sustainability* **2023**, *15*, 16334. <https://doi.org/10.3390/su152316334>

Academic Editor: Jesús-Nicasio García-Sánchez

Received: 22 June 2023

Revised: 10 October 2023

Accepted: 11 October 2023

Published: 27 November 2023



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Abstract: There is evidence that promoting prosociality through music helps activate participation and integration with the environment, supporting the emergence of empathic responses and fostering bonds between people, especially those with societal inclusion difficulties. The objective of this study was to conduct a systematic review of psychosocial intervention programs that have used musical techniques to promote prosociality in populations at risk of social exclusion. The search was performed following PRISMA methodology guidelines in the Web of Science, Scopus, ERIC, PubMed, and ProQuest databases between 2000 and 2021. A total of 11 studies met the selection criteria. The type of musical activity applied, research design, sample sociodemographic characteristics, measurement instruments and effectiveness were compared. Despite the heterogeneity of the interventions, populations, and contexts among the studies, music was found to be a potential resource for increasing prosocial behaviors, promoting physical and psychological health, and constructing alternatives to antisocial behaviors through the creation of safe spaces for creatively expressing subjectivity, providing prosocial referents, and facilitating cohesive and positive relationships. The limitations highlight the importance of investigating other variables within the studied populations, such as the age of the beneficiaries, the psychosocial problems they present, the level of risk they present, or even their motivations for participating in these programs. It can be concluded that this type of intervention has an impact on the increase in prosocial behaviors in people at risk of social exclusion. However, future studies should address methodological aspects related to the intervention itself, such as the duration of the intervention and the types of activities developed in these programs.

Keywords: prosocial; music; social exclusion; intervention; systematic review

1. Introduction

The consensus definition of prosocial behaviors is voluntary behaviors that benefit others, such as sharing, donating, caring, comforting, and helping [1]. Martí-Vilar and

Escriche [2] add that prosocial behaviors are positively valued behaviors with positive social consequences. Prosociality can be measured by self-reports, external assessments, intermediate instruments [3], or situational behavioral tasks [4]. Prosociality is the antithesis of antisocial behavior, making it of great interest for prevention programs.

According to Spinrad and Gal [5], although intervention programs often do not have a particular focus on prosociality, many emphasize some of its precursors, such as empathy, emotional understanding, and self-regulation. Models of the social impacts of the arts emphasize the role of cultural activities in fostering prosociality [6,7], which is associated with individual and social well-being.

The development of prosociality in particular and sociomotional competence in general is one of the variables that has been developed to a large extent in intervention programs for groups at risk of social exclusion. These include people within the judicial system and people who are delinquent or have behavioral problems, antisocial behaviors, and aggressive behaviors. The psychology of music is a subfield of psychology that investigates how the mind responds to, imagines, controls the performance of, and evaluates music [8]. From an evolutionary perspective, it has been argued that cocreating music might have helped early hominids regulate emotions and strengthen bonds, increasing cohesion and prosocial behaviors [9]. Music is often used to achieve positive social impacts. However, given that these effects occur at different relational proximities and time scales, there is little understanding of the effectiveness of different musical interventions that can be operationalized for systematic study.

The World Health Organization [10] defines health as a state of physical, mental, and social well-being and not merely the absence of disease or infirmity. A healthy individual realizes his or her own capabilities and can cope with the normal stresses of life and work productively, and can contribute to his or her community. Juvenile justice is considered a public health issue [11], and music making has been posited as a tool for health promotion and delinquency prevention in youth. Thus, many music interventions with youth seek to improve physical and psychological health and behavioral outcomes by providing positive social experiences and addressing problematic attitudes and perceptions [12]. There has also been an increase in music programs targeting populations in detention. Goals include improving these populations' physical and psychological well-being and developing their prosocial behaviors that aid rehabilitation and decrease recidivism [13].

The process of deciphering the emotional text of music is the same process used to decipher the emotions of others. Thus, cocreating music can potentially foster prosocial behaviors by promoting empathic responses [14,15] and theory of mind skills [16].

Several experimental studies have found that feelings associated with social exclusion are negatively related to helping behaviors [17]. It has been suggested that music can promote social inclusion [18,19], particularly by addressing risk factors in youth and reducing delinquency [20], as musical subcultures are a powerful resource for identity and value development.

A key assumption of arts-based programs that serve at-risk populations is that participation in itself can be therapeutic [21]. According to Ezell and Levy [22], arts-based programs focus on the creative process and the product and consider any arts activity that promotes positive change "therapeutic". These interventions can be preventive or rehabilitative and usually focus on problem behaviors, behavioral health issues [23] and improving outcomes, such as prosocial behaviors, resilience, problem-solving, self-regulation, and academic performance [24,25].

Buckley and Anderson's [26] general learning model suggests that media exposure, such as listening to music, influences the internal state, which comprises cognition, affect, and arousal. The internal state affects how an event is perceived and interpreted; thus, depending on the content of the music, effects on social behavior are expected. While listening to violent music may increase antisocial outcomes and decrease prosocial outcomes, exposure to prosocial music may achieve the opposite effect [18]. Some studies have shown that listening to songs with prosocial lyrics increases the accessibility of prosocial

cognition, empathy and helping behavior and decreases aggressive cognition, affect and behavior [18,27], facilitating participation and integration [28].

Music facilitates social cohesion [29,30], and the ability of group music-making to enhance social skills depends on the promotion of positive interaction. Thus, it has been concluded that music-making involving interaction can produce prosocial outcomes, such as increases in cooperative behavior [4,31], empathy [14], and helpfulness [32].

There is also evidence that group drumming reduces aggression-related stress and anger [33], improves social-emotional functioning [34–36], promotes social skills and decreases behavioral incidents in at-risk adolescents [37]. Daykin et al. [11] conducted an international systematic review in juvenile justice settings and with youth at risk of delinquency. These authors contributed to the evidence on the impact of music-making on health, well-being, and behavior and identified theories that could help to understand the impact of music. They concluded that music can be an important tool in promoting youth health and preventing delinquent behaviors.

The impact of participation in a choir has also been studied in marginalized groups seeking to establish social connections. Cohen et al. [38] noted that a choir group tended toward greater participation in social events than a control group. Von Lob et al. [39] interviewed singing groups who had experienced adverse life events and found that group social support was a major factor that included the development of meaningful relationships sharing the collective experience of making music. Dingle et al. [40] examined the effects of participating in a choir among adults with chronic mental health issues and/or physical and intellectual disabilities and identified a strong social connection in the choir and with the audience at performances. For several members, these effects were evident in their lives, as they viewed engagement in prosocial behaviors as natural.

The research question that gave rise to the present study aimed to identify the effect of interventions based on musical activities on prosocial behavior in people at risk of social exclusion. The objective of the study was to determine, through a systematic review, the impact of this type of intervention on prosocial behavior in populations at risk of social exclusion. An analysis was also conducted to determine the health impact of these interventions, which are most beneficial, and whether different results are obtained depending on the target group. Thus, the studies were compared on the basis of the interventions implemented, their research design, the participant sample size and sociodemographic characteristics, the measurement instruments, and the effect or effectiveness of the interventions.

The main hypothesis of this study is that interventions based on musical activities have a positive effect on prosocial behavior. This leads to an increase in prosocial behaviors, such as greater cooperation and cohesion, a greater number of helping behaviors, increased empathy, more positive peer relations, and self-regulation and a decrease in disruptive behaviors and aggressiveness in the beneficiaries who participate in these programs or interventions. These beneficiaries are characterized by a risk of social exclusion if their social, personal, and family characteristics, such as poverty, contact with the judicial system, antisocial behavior, presence of emotional and/or behavioral problems, or family breakdown, are taken into account. To our knowledge, this is the first study to synthesize the scientific evidence on the impact of musical interventions on health and prosocial behavior in groups at risk of social exclusion since 2012 [11].

2. Materials and Methods

The guidelines proposed in the PRISMA statement [41] for the performance of systematic reviews were followed, including various phases of refinement for the final selection. The process and the different phases conducted are detailed below.

2.1. Search

The search strategies used to obtain the material that forms the body of the review were conducted in May 2022. The search covered all social and cultural contexts and

registered studies from all countries to enhance the generalizability of the results. Articles published between January 2000 and December 2021 were included in the following databases: Web of Science (WoS) and Scopus, the Educational Sciences Institute (ERIC), PubMed, and ProQuest. A protocol was registered in PROSPERO and searched according to the following criteria (identification code CRD4202222337535).

2.2. Inclusion Criteria

The studies included conform to the following formats: (a) studies of an empirical nature using music as an intervention tool; in this sense, studies are included that analyze the existence of statistical differences with respect to prosocial behavior between a control group and an experimental group or in the experimental group before and after applying an intervention program based on music; (b) peer-reviewed articles; (c) studies including groups at risk of social exclusion as a target population, such as groups involving poverty, unstructured sociofamilial environments, incarceration or contact with the judicial system, or the presence of emotional and/or behavioral problems; (d) articles evaluating prosocial behaviors through the use of instruments, scales, or behavioral records elaborated for this purpose; (e) articles published in English or Spanish; (f) open-access articles.

2.3. Exclusion Criteria

The exclusion criteria were as follows: (a) other types of documents (books or conference proceedings), (b) works that were not empirical articles in which a prosocial behavior intervention program was applied, (c) systematic literature reviews, meta-analyses, or secondary analyses, (d) clinical case studies, (e) articles that did not include persons at risk of social exclusion, and (f) articles published in languages other than English or Spanish.

2.4. Procedure

The present systematic review was carried out in the WoS, Scopus, Eric, PubMed, and ProQuest databases. In a first search, the following keywords were entered: prosocial* AND music* AND social exclusion*. Subsequently, in order to find as many papers as possible, a second search was carried out by entering the following keywords: prosocial* AND music* AND intervention. The number of papers found when taking into account both searches was 374.

Finally, from the 28 papers assessed for eligibility, a manual search was performed by consulting the references of these papers, although no new papers were included in the review.

The selected documents were registered in the bibliographic manager Mendeley and an Excel spreadsheet. The following categories were used to systematically analyze the information in the articles: (a) author names, year of publication and country, (b) intervention methodology, (c) duration of the intervention, (d) participants, (e) evaluation instruments used, and (f) summary of the results obtained.

2.5. Selection Process

A total of 24 duplicate articles were eliminated in the first evaluation, and 322 were excluded in the initial screening after reading the title and abstract. An analysis of the full text of the remaining 28 articles was performed. Eight articles were eliminated because they did not include empirical studies based on musical intervention: five because they did not evaluate prosocial behaviors, three because they did not include individuals at risk of social exclusion, and one because it was not open access. The remaining 11 articles that met all the inclusion criteria were selected for the systematic review. The different phases of the procedure are detailed in Figure 1.

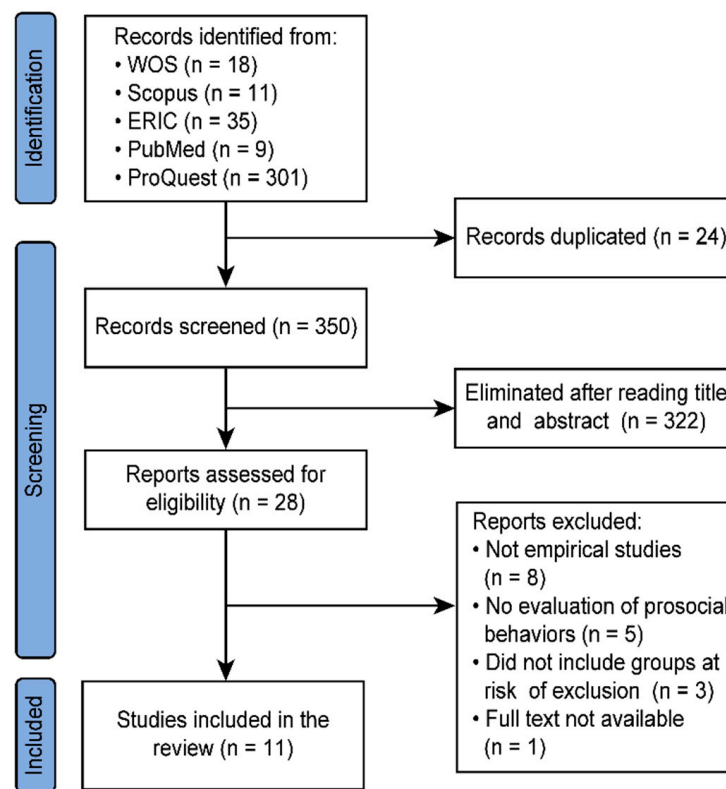


Figure 1. PRISMA diagram and study selection process.

3. Results

A total of 11 articles met the criteria for the review. A brief description of these articles is presented in Table 1.

Table 1. Synthesis of the results reviewed.

Author's and Country	Music Intervention Method	Music Intervention Length	Participants	Outcome Measures Method or Design	Summary of Results
Botella and Montesinos [42], Spain	Musical education. Program of musical activities to enhance prosocial skills and attention. Sessions included one or two activities and a reflective discussion.	4 weeks, including two 45 min sessions per week	24 primary school students. High percentage of North African and Romanian, South American, Chinese, and Japanese immigrants and natives with family breakdown. Control group (CG): No	Selective attention assessment test. Divided attention assessment test. Sustained attention assessment test. Sociometric questionnaire addressed to students. Sociometric questionnaire for educators. Quasiexperimental design.	Progress in respect, listening, helping and cooperation and, to a lesser extent, in self-esteem, empathy, and positive valuation of others.
Cespedes-Guevara and Dibben [43], Colombia	Comparative field study of a music training program, a dance training program, and a soccer training program (dropout of participants prevented the latter).	1 year	Children and adolescents from 9 to 14 years old from impoverished and violence-stricken neighborhoods. Music (n = 12), dance (n = 20), and soccer (n = 24) programs.	Toronto Empathy Questionnaire (TEQ). Empathy for pain task. Prosocial behavior was measured using a situational task. Nonexperimental longitudinal design.	The music and dance programs produced few significant changes in empathy or prosociality, and there were few significant differences between the two programs.

Table 1. Cont.

Author's and Country	Music Intervention Method	Music Intervention Length	Participants	Outcome Measures Method or Design	Summary of Results
Cook et al. [44], United Kingdom	Musical contact at school. Every session included opportunities for pair/group work and for groupings to allow all NT children to work with ASD children at various points throughout the term.	11 weeks, including one session per week	49 neurotypical children (NT) and 10 with ASD aged 10–11. Experimental Group (EG): Non-contact music with ASD. CG: Non-contact music with ASD	Social behavior questionnaire. Child Report Sympathy Scale. Bullying prevalence questionnaire. Reading a vignette depicting a child with autism being socially excluded (judgements toward treatment of a target of bullying with ASD, emotions in response to the bullying of a target with ASD, intended behaviors in response to the bullying of a target with ASD, open-format questions). Quantitative methods.	NT: Increased prosocial emotions, decreased tendency to be a victim. ASD: Decrease in victimization.
DeCarlo and Hockman [45], USA	Traditional psychoeducational group therapy and rap therapy to develop prosocial skills and assess perceptions of their usefulness.	6 weeks, including two 60 min session per week	21 African American adolescent males aged 13 to 15 (7 incarcerated for homicide, 7 on parole, and 7 with no criminal record). EG: Violent group and delinquent status CG: Students with no criminal record	RAP therapy assessment scale (questionnaire designed to measure group members' degree of affective response, acquisition of prosocial skills, and preference for the method of intervention). Not specified.	All preferred rap therapy for anger and impulse control, avoidance of criminal behavior, moral development, social relationships, and decision making.
Faulkner et al. [46], Australia	Program "Discovering relationships using music, beliefs, emotions, attitudes and thoughts" (DRUMBEAT). The activities undertaken in DRUMBEAT involved teamwork and social interaction among participants to achieve a group outcome and discuss themes related to socioemotional learning. Participants learned a range of rhythms and explored topics related to the development of healthy relationships.	10 weeks, including one session per week	60 students between 6 and 7 years of age. Nearly 40% were of Aboriginal descent. All had a history of risky behavior with various negative outcomes for the future. Three intervention groups (two male and one mixed) and three control groups (two male and one mixed) of ten. The control group was assigned to school electives.	Rosenberg Self-Esteem Scale. Behavioral observation scale asked for teacher feedback on behavioral changes over the 10-week period across five domains: relationships with peers; relationships with adults and teachers; emotional control; participation in group activities; and self-esteem. Questionnaire focused on participants' understanding of the goals of the program. Questionnaire assessing participants' perceptions of their own learning and their enjoyment of the program itself. Quantitative and qualitative methods.	Levels of antisocial behavior decreased; 60% increased levels of cooperation and collaboration in the test group compared with 40% in the control group.

Table 1. Cont.

Author's and Country	Music Intervention Method	Music Intervention Length	Participants	Outcome Measures Method or Design	Summary of Results
Guevara [47], Colombia	Psychosocial music therapy intervention (preventive and social) with central themes involving musical skills, social behavioral function, emotional responsiveness, language and communication, and prosocial skills.	30 sessions, including four 45 min sessions per week	18 preschool and elementary school children between 5 and 9 years of age from the Instituto Educativo Distrital de Bogotá at high risk for aggression. Two experimental groups and one control group: Experimental group 1 (EG1): completed a music therapy intervention of 30 sessions. Experimental group 2 (EG2): completed an intervention of 15 sessions comprising 4 weekly sessions of 45 min. CG: No intervention	Questionnaire for the evaluation of aggressive and prosocial behaviors (COPRAG). Beech Brook music therapy assessment for severely emotionally children. Quasiexperimental design	Positive effects on prosociality in EG2. Reduction in direct aggressiveness and disruptive responses and impulsivity in relation to social function, emotional responsiveness and musical skills in both groups, and communication, with higher results in EG1.
Kõiv and Kaudre [48], Estonia	Integrated Arts Therapy Program, including art, drama, music, and dance/movement therapy.	5 weeks, twice a week	29 young female delinquents between 14 and 17 years with emotional and behavioral problems in a correctional institution. EG: n = 12. CG: n = 17.	Strengths and Difficulties Questionnaire (SDQ). Modified Behavior Checklist (BC). Quasiexperimental design	Decrease in emotional problems and aggressive behaviors and an increase in prosocial behaviors.
Massó-Guijarro and Montes-Rodríguez [49], Spain	Xpres-arte socioeducational intervention: participants wrote a song with a theme of their choice and produced lyrics about drug addiction and social prejudices about their group. A video clip was recorded as a visual support, which was exhibited.	Almost 2 months	Ten adolescent offenders (eight males and two females) who were serving legal sentences in an open environment compliance center. Nine of white ethnicity and one of Romani ethnicity. CG: None.	Open response questionnaires. Qualitative methodology of ethnographic nature and analysis of categories.	They achieved the peaceful empowerment of free expression and self-affirmation. Positive visibility reinforced prosocial behaviors, which are protective factors against maladaptive behaviors.
Rawlings and Young [50], EEUU	Four groups: Wind symphony and philharmonic orchestra in grades 11 and 12. Symphonic band and symphony orchestra in grade 10.	2 years.	95 students (48 boys and 47 girls) between 8 and 17 years old from 8 randomly selected schools with significant emotional and social behavioral problems and a criminal record in the last 12 months. CG: None.	The University of Illinois Willingness to intervene in bullying episodes scale. Crick and Grotpeter's relational aggression scale. The caring of others (COO) scale. Quantitative methods.	Willingness to intervene in bullying episodes predicts a decrease in relational victimization while controlling for caregiving. This prediction was most encouraging for participants in the wind symphony class.

Table 1. Cont.

Author's and Country	Music Intervention Method	Music Intervention Length	Participants	Outcome Measures Method or Design	Summary of Results
Rickson and Watkins [51], New Zealand	Music therapy; active music creation and listening activities.	16 sessions including two 30–45 min session per week	Initial sample of 18 male adolescents aged 11.6 to 15.3 years with social, emotional, and learning difficulties, from a special education residence. Among them, 12 had ADHD (5 also had ODD or CD), 4 had GDD, and 1 had head injury and depression. Fifty percent were of Maori ethnicity, and 50% were European New Zealanders. The final sample was 15.	Developmental behavior checklist. Video analysis (the process involved writing a thorough description of group activity and each individual subject's specific behavior in that context during a 10 min allocated period). Quantitative methods.	While definite effects were not detected, a music therapy program that promotes autonomy and creativity may help participants interact more appropriately in a residential setting, but could also lead to a temporary slight increase in disruptive behavior in the classroom.
Suh [52], Korea	Therapeutic intervention of dyadic, synchronized, and improvised percussion based on the basic competencies of social-emotional learning.	10 weeks, including one 45 min session per week There was also a 6 h workshop to teach teachers how to use percussion to lead the students' percussion group.	65 students from a high school near the center and in a region of lower and middle class residence in Daegu, Korea. CG: Yes.	Buss–Perry aggression questionnaire. Sequential mixed methods.	Percussion can promote prosocial behaviors (emotional processing, cohesion, empathy, positive relationships, self-esteem, and self-regulation) in students of this age with regard to school violence.

Abbreviations: ADHD: attention deficit hyperactivity disorder; ASD: autism spectrum disorder; CD: conduct disorder; GDD: general developmental disorder; ODD: oppositional defiant disorder.

3.1. Relevant Characteristics of the Interventions Implemented in the Studies

The following is a description of the different music-related actions implemented in the studies included in this systematic review.

Botella and Montesinos [42] elaborated music development activities to enhance participants' prosocial skills and attention span based on deficiencies observed in the pretest phase. The activities were cooperative and team-based to promote prosociality; they involved peer help and facilitated empathy. For example, students took on the role of tutors and built self-esteem through the election of representatives and positive valuation by considering the effort of their peers to perform activities. Cook et al. [44] conducted a music contact program in a feasibility study comprising interviews with two mainstream primary school music teachers and explored practices for teaching music, methods for including children with autism in music lessons, and the manageability and fitness of the proposed music program.

Additionally, in the educational setting, participants in Guevara's [47] study received music therapy to reduce aggression and promote prosociality as a protective factor. Techniques such as instrumental improvisation, group singing, painting and movement to music, use of the body as an instrument, sung dances, musical role-playing and musical interaction, and feedback as a means of reflection were employed. Kõiv et al. [48] implemented a multimodal art therapy program integrated into the school curriculum encompassing four art modalities aimed at promoting self-concept and social and emotional skills (visual arts therapy (40%), music therapy (10%), drama therapy (30%), and dance-movement therapy (20%)). Rickson and Watkins [51] conducted a pilot study of group music therapy in a residential special education school. Activities included sharing selected music, personalized

singing, rhythmic call-and-response games, opportunities for experimentation, caring for musical instruments, appropriate sharing, and group song writing.

Rawlings and Young [50] used data from high school youth enrolled in a band and orchestra instrumental music program to examine the effects of relational victimization and perceptions of their willingness to intervene in bullying episodes by self-reporting. Four groups were analyzed: Wind Symphony, Philharmonic Orchestra in each grade, Symphonic Band, and Symphony Orchestra.

Other interventions were not designed by researchers, such as the study by Cespedes-Guevara and Dibben [43], who conducted a comparative field study of three social intervention programs delivered in impoverished neighborhoods: one involved musical training, one involved dance, and one involved soccer, although participant dropout prevented comparison with the latter. In addition, these authors conducted a second interview study to understand the place of prosociality in the objectives and work of policymakers, funders, and third-sector practitioners delivering cultural activities in that region. However, since not all participants represented groups at risk of social exclusion, the second study was not analyzed here.

DeCarlo and Hockman [45] implemented rap therapy, which was selected as an intervention tool for the development of prosocial skills because of its strong influence on the socialization processes of adolescents. The model required participants to perform a lyrical analysis of several types of rap music songs. To test the model, it was compared with psychoeducational group therapy. Massó-Guijarro and Montes-Rodríguez [49] present “Xpres-arte”, a socioeducational intervention that examined the role of rap music and audiovisual media in an open environment compliance center for adolescents under legal measures. The objectives were established from a needs diagnosis in which rap, dance, and audiovisual media emerged as privileged vehicles to access these adolescents, and the methodology was participatory to encourage active involvement. The participants were asked to write a song with lyrics about drug addiction and social prejudices within their group. A video clip was recorded as visual support for the song with “passions” as the theme. Finally, an open exhibition was organized for family and friends.

Faulkner et al. [46] also conducted a percussion program, “Discovering Relationships Using Music, Beliefs, Emotions, Attitudes and Thoughts”, that focused on the therapeutic value of musical expression and integrated content to increase awareness of social factors fundamental to developing healthy relationships. These themes were drawn from analogies between the experience of drumming and everyday life and included values, empathy, altruism, social responsibility, emotions, social harmony, problem solving, and teamwork to achieve a group outcome. Additionally, Suh [52] implemented a dyadic, synchronized, improvised percussion therapeutic intervention based on the core competencies of social-emotional learning for the prevention of school violence.

The longest study was a 2-year longitudinal evaluation by Rawlings and Young [50]. This was followed by a comparative study by Cespedes-Guevara and Dibben [43] in which evaluations were conducted 3 months after the start of the program and after the first year. The remaining studies were 11 weeks [44], 10 weeks [46,52], 8 weeks or 2 months (such as [48,49,51]), 6 weeks [45], and 3 and a half weeks [42] in length.

The reported studies also differed with regard to the professionals who implemented the programs. In the comparative study by Cespedes-Guevara and Dibben [43], the professionals who implemented the programs were nongovernmental organizations (NGOs). The DRUMBEAT program [46] was delivered by trained facilitators, an officer from the Community Drug Service Team and an aboriginal liaison officer from the Department of Education and Training. Teachers were involved in identifying participants and providing feedback on the results. The Kõiv et al. [48] study was conducted by two professionals with certificates in art therapy. In Massó-Guijarro and Montes-Rodríguez’s [49] research, the workshop was designed and implemented by an interdisciplinary mediation team consisting of a pedagogy student, a journalism student, and a social education student who had a drama degree. All instrumental music classes in the Rawlings and Young [50]

study were taught by the same music teacher. Rickson and Watkin's [51] music therapy program was implemented by a music therapist and based on a client-centered humanistic psychotherapy model. Finally, in Suh's [52] study, a music teacher and a music therapist collaboratively designed and implemented the program.

3.2. Design

This section of the results shows the type of design used in each study, as well as the inclusion or not of a control group.

The selected studies favor the implementation of experimental or quasiexperimental designs, with only one exception [43] that had a nonexperimental longitudinal design. Specifically, this was a comparative study of three preexisting social intervention programs in which participants were evaluated 3 months after starting training in the respective cultural activities and 1 year later. In the Rickson and Watkins [51] study, participants were randomly assigned to two music therapy treatment groups and a wait-list control group.

Quasiexperimental studies have an experimental model but fail to comprehensively monitor intervening variables, including the sample selection process (e.g., [42,44,47]). Several studies considered only the intervention group [42,43,48–50,52]. In contrast, others incorporated a control group, which can be distinguished by (a) different sociodemographic characteristics, such as a sample consisting only of a neurotypical population, a sample without contact with people diagnosed with autism spectrum disorder (ASD) [44], or people without a criminal record [45]; and (b) not receiving the intervention [46,47], a condition that facilitates a comparative contrast that validates the effectiveness of the intervention process.

3.3. Sample Size and Sociodemographic Characteristics

The following is a description of the characteristics of the samples that participated in the studies included in this review. Specifically, we include data related to sample size, gender, educational level of the participants, ethnicity and race, and other conditions that may be relevant, such as participants with judicial measures or in special education centers.

All of the sample sizes were small, i.e., fewer than 200 participants. The study with the largest sample was that of Rawlings and Young [50], with 131 students. Massó-Guijarro and Montes-Rodríguez [49] had the smallest sample size, with only 10 participants.

Many of the studies incorporated samples from the educational community, either preschool and primary education [42,44,46,47] or secondary education [50,52]. Other studies incorporated a larger sample and included both elementary and high school students [48] or adolescents from a residential special education school [51]. Cespedes-Guevara and Dibben [43] included children and youth recruited through NGOs. In two studies, the included adolescents had committed a criminal offense [45,49].

Two studies (18.1%) included only males [45,51], while the rest (71.9%) also included females. Rawlings and Young [50] also offered the option of marking "other" in the gender category. The overall reported age range fluctuated between 5 and 17 years.

Regarding nationality, in the study by Botella and Montesinos [42], it was noted that the center where the intervention was conducted had a high percentage of immigrants from North African and Romanian backgrounds. Students from families of South American, Chinese, Japanese, and other origins also attended, although the number comprising each nationality was not reported. Some studies collected information regarding ethnicity. DeCarlo and Hockman [45] worked only with urban African American male adolescents, who are underrepresented in the evidence base of group therapy knowledge despite their disproportionate representation in the criminal justice system. These studies also found that these individuals were less likely to receive adequate mental health treatment. In the Faulkner et al. [46] study, Aboriginal descendants from the Wheatbelt region of Western Australia constituted 40% of the sample. Massó-Guijarro and Montes-Rodríguez [49] included one person of Romani ethnicity and nine of white ethnicity. The sample in Rickson and Watkins' [51] study comprised 50% male adolescents of Maori ethnicity and

50% European New Zealanders. Rawlings and Young [50] distinguished between white (91.5%) and nonwhite (8.5%) participants, which is remarkable in a country as ethnically diverse as the USA.

3.4. Measuring Instruments

This section of the results presents the different instruments and techniques used in the evaluation of the dependent variables included in each study.

The study variables were diverse in the objectives of each intervention; however, we highlight those of a prosocial nature, which are of greater interest in this study. To evaluate prosociality, Botella and Montesinos [42] considered self-esteem, empathy, cooperation, helping, respect and listening through two sociometric questionnaires, one completed by the teacher and the other by the students. The direct observation technique was used to detect prosociality deficits during the pretest, posttest, and intervention evaluation phases. Prosociality was also measured through other procedures; for example, Cespedes-Guevara and Dibben [43] used a task in which one researcher “accidentally” dropped pencils, while another researcher noted the number of pencils picked up by the participant. This technique allowed useful behaviors to be observed directly rather than reported in a questionnaire.

Faulkner et al. [46] employed the Behavior Observation Scale, which assesses prosocial behaviors such as levels of cooperation and collaboration among peers and between adults and teachers. Rickson and Watkins [51] used the Disturbance and Antisocial Behavior subscales from the Developmental Behavior Checklist teacher and parent versions (completed by social workers) (DBC-P and DBC-T; [53,54]) to assess effects on aggressive behavior.

Guevara [47] used the Questionnaire for the Evaluation of Aggressive and Prosocial Behavior (COPRAG; [55]), which allows the identification of symptoms of direct and indirect aggressiveness and symptoms of prosociality, in addition to hyperactivity/attention deficits and depression/anxiety syndromes. The Beech Brook Music Therapy Assessment for Severely Emotionally Disturbed Children [56] was also used as an initial and final assessment tool. This standardized battery assesses children’s social and behavioral performance, emotional responsiveness, and communication and musical skills on a scale with defensive behavior at one end, invasive behavior at the other, and desired behaviors in the middle. Kõiv et al. [48] administered the Strengths and Difficulties Questionnaire (SDQ; [57]), which includes five scales: emotional problems, conduct problems, hyperactivity, peer problems, and prosocial behavior.

More specific precursors of prosociality were also measured, such as empathy. Cespedes-Guevara and Dibben [43] assessed empathy through (a) the Toronto Empathy Questionnaire for Trait Empathy (TEQ; [58]) and (b) the Pain Empathy Task for Situational Empathy [59], in which videos of three situations were shown: scenes of intentional harm, accidental harm, and control scenes in which no harm is done. After watching each video, the participants were asked whether they believed the harm was intentional (cognitive empathy), how sad they were for the victim (empathic concern), how upset they felt (personal distress), whether they blamed the perpetrator (moral blame), and whether they believed the perpetrator deserved punishment (moral evaluation).

Suh’s [52] program worked on socioemotional components such as self-knowledge, self-management, social awareness, relationship skills including empathy or community building, and responsible decision making through assertiveness and cooperation. To assess the results, some participants were interviewed, while others completed an open-ended survey. Both formats included the same questions. The researcher focused on the words the participants used to describe their experiences in the qualitative data analysis and used an inductive approach to identify emerging themes and an iterative coding process.

In the prosocial bystander intervention framework, Rawlings and Young [50] employed (a) the University of Illinois Willingness to Intervene in Bullying Episodes Scale (UIWIB; [60]), in which participants were asked the extent to which they agreed with statements about intervening directly or indirectly when faced with bullying, and (b) the Caring for Others Scale (COO; [61]), which includes four items measuring caring behaviors

toward other students. Cook et al. [44] used, among others, the (a) Prosocial Behavior Questionnaire [62] containing items assessing helping, sharing, kindness, and conflict resolution, (b) the Child Report Sympathy Scale [63], and (c) predicted behaviors in response to bullying of a target with ASD involving Likert-type items (four prosocial and four antisocial). To do so, they depicted a bullying scene in a vignette, similar to the role of a bystander in a real bullying scenario.

Although not an exclusive assessment instrument for prosocial behaviors, the RAP Therapy Assessment Scale (RTAS) was administered by DeCarlo and Hockman [45] to assess the usefulness of group work. This questionnaire was designed to measure the degree of affective responsiveness of group members, the acquisition of prosocial skills, and preference for the intervention method. Using purely qualitative methods, Massó-Guijarro and Montes-Rodríguez [49] employed participant observation, recording information in a field notebook and analyzing the final product. Photographic and video records of the entire process were also compiled.

3.5. Effectiveness of Musical Interventions in Promoting Prosociality and Health: Analysis of Results

The effects of the music-based interventions on the dependent variables analyzed in each study are presented below, taking into account the results either between experimental and control groups or between before and after applying the intervention.

Botella and Montesinos [42] obtained positive effects after their intervention with respect to listening, helping and cooperation and, to a lesser extent, self-esteem, empathy, and positive valuation of others. The percentages of improvement did not exceed 40%; however, since the study period was short, the researchers concluded that music teaching promoted prosocial behavior. Notably, these researchers also investigated attention and found that it developed with greater intensity. Cook et al. [44] worked with neurotypical students in contact with students with ASD through music. The results showed that although this music approach had no impact on prosocial behavior, agreeableness, the tendency to bully, and expected behaviors in response to social exclusion, an increase in prosocial emotions and/or a decrease in antisocial emotions was demonstrated in response to a hypothetical bullying scenario depicting the exclusion of a child with autism. In addition, this group revealed a decrease in the tendency to be victimized compared to the noncontact group. Students with ASD showed a 19.7% decrease in victimization.

Rawlings and Young [50] used four instrumental sets and found that self-reported willingness to intervene in bullying episodes varied across these sets. Furthermore, willingness to intervene significantly predicted a decrease in relational victimization while controlling for caregiving and was most encouraging for participants in the Wind Symphony class. No significantly different levels of relational victimization were shown between the female and male samples, but nonwhite participants reported more frequent experiences of relational victimization ($M = 6.16$, $SD = 3.36$) than white participants ($M = 4.99$, $SD = 2.05$). Although this difference was not significant, it may indicate a greater problem related to the music program and/or school climate.

Guevara [47] indicated that music therapy had significant effects in both experimental groups on direct aggressiveness by reducing physical and verbal abuse and the response to a real or perceived offense but did not have an effect on indirect aggressiveness. Prosociality had significant effects only in group two (incomplete treatment). However, in general, the children who participated in the study presented average prosociality, and it was suggested that children could present aggressive and prosocial behaviors simultaneously to cope with precarious socioaffective conditions in family and social contexts and as a new way of gaining visibility. The Beech Brook battery [56] results demonstrated a reduction in disruptive responses in both groups. Impulsivity was reduced in relation to social/behavioral function, emotional responsiveness, and musical skills in both groups and in relation to language/communication, but with more contrasting results, in group 1.

Kõiv et al. [48] implemented an integrated art therapy program and found a significant difference between the experimental group and the control group in relation to a decrease in conduct problems and emotional problems and improved prosocial behavior among young female delinquents in the experimental group according to the SDQ. In addition, according to instrument BC, there was a significant decrease in aggressive behaviors in the experimental group after the intervention and an increase in prosocial behaviors. These differences also occurred between the control and experimental groups.

The two interventions using rap music had positive impacts on the promotion of prosocial behaviors. In the prosocial skills information index, all of DeCarlo and Hockman's [45] recipients preferred rap therapy as a tool for understanding and managing anger and impulse control, moral development, gender-based violence, social relationships, daily life situations, and decision making and avoiding delinquent behavior. The group activity allowed them to analyze lyrical vignettes of irrational thinking or belief systems and replace them with prosocial choices. They completed the task using rap music as a cultural representation of their experience, and not all of the vignettes were negative; several of the songs presented positive social messages.

Massó-Guijarro and Montes-Rodríguez [49] achieved peaceful empowerment of free expression and self-affirmation in adolescents. They moved from a focus on the limiting social expectations for young offenders and consumers to a second concern regarding the effects of drugs and an eagerness to overcome and achieve their potential. In a group unaccustomed to being listened to, the positive visibility obtained through the process and product of the audiovisual media reinforced prosocial behaviors, which are protective against maladaptive behaviors. It was pointed out that this was only possible by establishing a dialogic link between educators and students, listening to the participants' interests and applying participatory creation methodologies.

The two interventions using percussion also obtained positive effects related to prosocial behavior. Levels of antisocial behavior decreased significantly after the implementation of Faulkner et al.'s [46] "DRUMBEAT" program, and the cooperation and collaboration levels indicated that 16 of the 27 participants (60%) had increased scores versus 11 of the 30 control group members (40%). Suh [52] found that dyadic, synchronized, and improvised percussion promoted prosocial behaviors (emotional processing, group cohesion, empathy, peer relationships, self-esteem, and self-regulation) to address school violence among high school students. The therapeutic percussion experiences varied depending on the needs and feelings of the participants; however, the intervention succeeded in fostering active listening, synchronization and empathy, group cohesion, and experiencing how to manage their emotions in a safe and positive climate, thus improving prosocial behaviors.

Other results were less promising, such as those in the study by Cespedes-Guevara and Dibben [43], in which the music and dance programs produced few significant changes in empathy or prosociality and there were few significant differences between the two groups. Despite the lack of statistically significant differences, Rickson and Watkins [51] suggested that music therapy may help individuals increase awareness of others' feelings and develop positive relationships, at least among children without severe attention deficits, in a less formal setting such as a residential village.

4. Discussion

This review of psychosocial interventions analyzed participation and musical creation programs whose objectives included promoting prosocial behavior and that targeted groups at risk of social exclusion. The analysis assessed the study interventions, techniques, results, and limitations.

The aim of the present study was to determine the impact of musical interventions on prosociality in populations at risk of social exclusion. Thus, a systematic review was conducted using Web of Science (WoS), Scopus, the Educational Sciences Institute (ERIC), PubMed, and ProQuest databases and following the PRISMA protocol. The results obtained from the 11 articles included in the present review support the main hypothesis of the

study. Nine studies found benefits of this type of intervention on the development of prosociality, with a greater number of helping behaviors, greater cooperation and cohesion among participants, greater empathy, or a decrease in emotional problems and aggressive and antisocial behavior [42,44–50,52].

On the other hand, two studies [43,51] found no significant changes in the development of prosociality after applying a program of musical activities. Cespedes-Guevara and Dibben [43] found that music and dance programs produced few significant changes in prosociality, concluding that these programs offer no long-term psychosocial benefit is pessimistic and probably unjustified. The authors suggest that while music psychologists have identified the effects of music training in terms of empathic and prosocial attitudes, the impact lies in its ability to help visualize a positive life project. Thus, it may be necessary to measure other variables in addition to prosociality, such as self-esteem, self-efficacy, or the construction of life projects and social identity, given that cultural intervention programs often advocate a broad set of goals related to individual and social transformation.

Rickson and Watkins [51] did not find an effect on prosociality after applying a therapy program based on musical activities. However, these authors noted that this type of intervention promotes autonomy and creativity in adolescents, which facilitates interaction among them. In addition, they identified a momentary increase in disruptive behaviors in the classroom. However, the authors acknowledge that these results were significantly affected by the differences in the age of the subjects and the diagnoses between the control group and the experimental group.

As noted in the literature [27], research has focused on the negative effects of exposure to music on attitudes and intergroup behavior, but less is known about the possible positive outcomes. For example, rap music, one of the most popular genres among young people worldwide, has been the subject of a great deal of criticism as a result of negative lyrical content [11], which sometimes conveys violent, misogynistic ideas and glorifies criminal or unhealthy activities. However, as the results of the reviewed studies show, rap music also has a prosocial subgenre that is a promising tool for mental health programs that promote positive development. Classical music has been labeled elitist and old-fashioned, but experiences such as those of “El Sistema” represent symphonic music as a potential facilitator of socioeconomic and moral development [64]. These training spaces are focused on strengthening citizenship education and teaching ethical and aesthetic values proper to musicals rather than training professional musicians. This training adapts to the socio-cultural circumstances of each community or collective and is consistent with the study by Rawlings and Young [50] analyzed in this review, which concluded that adolescents who participate in musical ensembles show a greater tendency to defend their peers during episodes of bullying. This finding leads to the conclusion that music ensembles can facilitate a space for positive interactions between people with similar interests, goals, and prosocial behaviors and have a positive social impact. However, it is possible that secondary school is too late to start examining these behaviors. Thus, it is relevant that studies conducted in early childhood and primary education have also found positive results (e.g., [42,44,47]).

The dichotomous thinking of “all good” or “all bad” in relation to a musical genre simplifies the complexity and diversity of musical forms and prevents a deep understanding. The use of this cultural resource, as has been corroborated, activates the interest and curiosity of the people involved in the intervention. These effects are especially positive and facilitate active involvement if a needs assessment is conducted beforehand to determine the needs and interests of the target audience. This approach also combats the reactivity and resistance that some recipients may have if participation is mandatory, as is the case for young people who are under legal measures or have a criminal record (e.g., [45,49,50]).

As Freire [65] pointed out, significant gains can be achieved when group activities are connected to the valuable elements of members’ experiences. An example is Faulkner et al.’s [46] “DRUMBEAT” program, which was presented in a nonthreatening way that differed from other cognitive behavioral interventions and with consideration of indigenous youth, in this case, from New Zealand.

The need to consider the participants' specific characteristics was demonstrated in Rickson and Watkins's [51] music therapy program. Some individuals diagnosed with ADHD become overexcited in a creative group music therapy setting. The results indicate that individualized and highly structured approaches may be more effective for this population. However, the trends suggest that rhythmic activities may facilitate internal organization and help with impulse control in children able to handle stimuli, increase adolescents' awareness of others' feelings, and promote the development of positive relationships.

Music, whether through the composition of lyrics or songs, playing instruments, singing or creating rhythms, becomes a support for intervention that allows the construction of a space for reflection, expression, and redefinition of the images that individuals in these groups have of themselves and their context in a safe and positive climate [52] since there are no right or wrong answers. This environment is only achieved if the individuals have confidence in their abilities, however diverse they may be, to achieve better learning outcomes. This is especially true for the most excluded contexts in which, as Flecha and Villarejo [66] point out, there is an urgent need to break the cycle of inequality.

A relevant discipline in this field is social or community music therapy, which develops social competence and fosters emotional processes through musical means that promote a sense of community. According to Stige [67], the music therapist intervenes as an external agent and collaborates using his or her scientific-technical knowledge. The music therapist facilitates empowerment and self-management processes and, together with the community, can identify needs and develop strategies to enact a process of change and transformation. Guevara's [47] study was based on this approach, and Faulkner et al. [46], Massó-Guijarro and Montes-Rodríguez [49], and Suh [52] also included elements that evoked this type of intervention.

Palmer et al. [68] found that children are more likely to support a victim from their own group and noted that previous research has shown that bystanders' prosocial intentions are mediated by group identification. Pulse and pitch synchronization in music that leads to synchronous motor movements, such as dancing and singing, is known to weaken the boundaries between the individual and the group, which generates feelings of collective cohesion and increases cooperative behaviors [69]. A central component of inclusion is that positive contact with other groups, under appropriate conditions, effectively reduces prejudice between majority and minority members [70]. Communication enhances the understanding of others' points of view; consequently, prejudice tends to diminish. This contact makes it possible to reconceptualize group categories and increase the capacity to adopt the perspective of out-group members and empathize with them. As evidenced, group therapy offers experiences that help to correct behavior and overcome misimpressions of the self and others, and group music-making provides an opportunity for this positive contact [44]. The phenomenon of group membership has been widely studied in social psychology to prevent violence or foster inclusion through music from different approaches, such as the prosocial bystander model [50], positive social contact between socially differentiated groups [44,46], or exposure to prosocial lyrics [18,49,71]. In social psychology, members of different groups recategorize themselves as members of the same group, which is called "recategorization" [72]. Some studies have found that increased prosociality blurs the boundaries between groups that were previously considered distinct and targeted by prejudice and/or discrimination (e.g., [42,44,52,71]).

Notably, only a small number of studies could be studied. The literature search revealed numerous additional interventions involving music; however, these studies either did not include a sample at risk of social exclusion or did not evaluate prosociality. Some interventions have aimed to test whether exposure to musical media can promote prosocial behaviors toward groups at risk of social exclusion. For example, Greitemeyer and Schwab [71] exposed German and Austrian university students to songs with prosocial content in favor of integration or with neutral lyrics toward the exogroup (Turkish people, one of the most common migrant groups in these countries). Both overt and subtle prejudice, discrimination, and aggressiveness toward the exogroup were significantly reduced

when participants listened to these pro-integration songs. In addition, the participants demonstrated more helping behaviors toward the exogroup. In general, most of the studies included in the systematic review found improvements in different areas of prosocial behavior thanks to interventions based on music therapy [42,44–50,52]. In the case of the studies that did not find significant effects after the interventions [43,51], methodological aspects, very large groups of participants, and poorly structured programs could explain the lack of positive effects. All the studies included had samples of children or adolescents, so it would be interesting, given the good results obtained, to test the effectiveness of musical interventions in subjects at risk of social exclusion of different age groups.

These effects were not influenced by the participants' song preference or mood or the songs' arousal properties, suggesting that the pro-integration content of the lyrics drives the effects. A future review could compile studies that, instead of targeting people at risk of social exclusion, focus on prosocial behaviors through musical means with the remaining population, thus helping to facilitate their social inclusion. It would also be interesting to examine whether musical interventions conducted with a sample of people who are not at risk of exclusion can be replicated with positive results in people who are.

When working with groups at risk of social exclusion, it should be noted that many cannot afford musical activities in extracurricular and nonformal education. Thus, public schools and institutes are often the few places where these people can experience musical creation and participation. In fact, many of the interventions analyzed were conducted in the educational context. Therefore, once the potential impacts of music in relation to social development and welfare have been demonstrated, it is necessary to stress the benefits of music education and the importance of not relegating it to a residual or secondary role. This becomes even more relevant in the context of evidence that bullying prevention and intervention efforts using interactive forms of music therapy can be more engaging, motivating, and effective than traditional efforts without music [50,52,73].

Limitations and Future Directions

This study is not without the following limitations, which can be overcome in future research: (a) the number of search terms was potentially insufficient for the identification of a larger number of articles, (b) the analysis of the characteristics of each program was brief due to a lack of data regarding the methodology in some studies and activities and the role of the intervention in the assimilation of prosocial behaviors in the different target groups, and (c) there was wide heterogeneity of the variables involved and instruments used in the different studies, which hindered the joint analysis of the interventions and therefore the development of generalizations.

Despite the need to use psychosocial interventions in groups at risk of social exclusion, there are few articles in the literature that study aspects of prosociality in this type of population. Furthermore, many of the results are difficult to generalize due to limitations in the size and characteristics of the sample, the diversity of the groups considered at risk of social exclusion, the lack of a control group, or the lack of a double-blind method, among other factors.

5. Conclusions

Although it is difficult to generalize from such diverse contexts, the analyzed studies provide useful information on the scope and potential impact of music creation with groups at risk of social exclusion. However, it is not feasible to contrast the effectiveness of each of the interventions due to methodological differences, mainly due to the characteristics of the samples, the variables and measurement instruments, and the number of sessions of the different interventions. Analysis of the particular characteristics of each intervention program with regard to its methodology and objectives is recommended to identify the role of prosociality in users and the impact on other aspects of their lives. Moreover, some of the studies are inconclusive, which raises challenging questions for practice, such as how to balance the need to validate the identities of disadvantaged groups and ensure

commitment and, at the same time, offer them alternative resources for identity and psychosocial development.

The results motivate the formation of inclusive interventions in which all members, without exclusion, have equal access to quality music education and economic barriers do not limit community participation. As reflected in the results, music can contribute to the promotion of prosocial behaviors because (a) it facilitates the development of a collective sense of belonging; (b) it strengthens personal and social development through participation in musical groups; (c) it favors the appropriation of cultural capital; (d) it favors the positive use of free time away from activities that can damage health and physical, mental, and even spiritual development, thereby serving as a protective barrier against the risks of violence and antisocial behaviors; and (e) it provides opportunities for the acquisition of trade skills.

It is necessary to find new theoretical and practical approaches that can connect with the changing reality in which these groups live to seek educational and psychosocial alternatives that combat the vision of at-risk groups as hopeless and lost beings, beginning with their ability to express themselves and develop skills through music. It is also critical that social intervention practitioners adopt innovative, evidence-based, and culturally relevant intervention techniques that can enhance the effectiveness of the activities. It is hoped that these efforts will identify additional tools for creative methods that transcend conventional means and enable the development of engaging and effective prosocial programs.

Author Contributions: Conceptualization, M.M.-V., M.V.-A. and F.G.-S.; methodology, C.M.-S., S.H.-F. and F.T.-T.; software, M.V.-A. and M.M.-V.; validation, M.V.-A. and F.G.-S.; formal analysis, M.M.-V., M.V.-A. and F.G.-S.; investigation, S.H.-F., C.M.-S. and F.T.-T.; resources, F.T.-T.; data curation, C.M.-S. and F.T.-T.; writing—original draft preparation, M.M.-V., M.V.-A. and F.G.-S.; writing—review and editing, M.M.-V., M.V.-A., F.G.-S. and F.T.-T.; data visualization, S.H.-F., C.M.-S. and F.T.-T.; supervision, M.M.-V. and F.T.-T.; project administration, M.M.-V. and F.T.-T.; funding acquisition, F.T.-T. All authors have read and agreed to the published version of the manuscript.

Funding: Hospital Infantil de México Federico Gómez National Institute of Health, research project HIM/2015/017/SSA.1207, “Effects of mindfulness training on psychological distress and quality of life of the family caregiver”, with the main researcher Filiberto Toledano-Toledano, Ph.D. The source of federal funds did not control the study design, data collection, analysis, interpretations, or decisions regarding publication.

Institutional Review Board Statement: The study was conducted according to the guidelines of the Declaration of Helsinki and approved by the Commissions of Research, Ethics and Biosafety at the Hospital Infantil de México Federico Gómez, National Institute of Health.

Informed Consent Statement: Not applicable.

Data Availability Statement: The raw data supporting the conclusions of this article will be made available by the authors without undue reservation.

Acknowledgments: The authors thank Miguel Ángel Núñez-Benitez for his support.

Conflicts of Interest: The authors declare no conflict of interest.

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