

Original Article

Effects of Music on Resilience of Parents who Have Children with Special Educational Needs

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Abstract

Background: The recreational, educational and in many cases, the therapeutic use of music, is widely known since ancient times. Music may be answered throughout all stages of human life cycle and it addresses a mosaic of complex needs of different sensitive groups. Among them, music can be implemented in the sector of Special Education.

Objective: The assessment of the effects of familiar music on resilience of parents, who have children identified with special educational needs (SEN).

Methodology: It was a cross-sectional study that was conducted from 1st March to 31th May of 2024. The study population included 40 parents with children with SEN, based on convenience sampling. A self-administered questionnaire was used for data collection. This tool consisted of 5 different parts, which included 28 questions about: a) the demographic characteristics of the parents, b) their musical preferences, c) the Greek version of Brief Resilience Scale questionnaire (BRS), d) the eventual relation between music and resilience and e) other sources of parents' self-empowerment.

Results: According to Brief Resilience Scale, resilience mean score was 3.4. This score signifies a moderate level of parents' resilience in general. Yet, a higher resilience score was observed in parents who answered, that felt calmer and more empowered, faced stressful events more easily and optimistically, got a better mood and tended to bounce back, more quickly after hard times, when listening to their favorite music. A statistically significant relation was found between frequency of listening to music and parents' resilience ($p=0.002$).

Conclusions: Listening to familiar music may enhance resilience of parents, who have children with SEN. Thus, it can be used as a fundamental element of parenting counseling, on the basis of a holistic family therapy model. Since it is a noninvasive and inexpensive intervention, it could be widely implemented in the public sector of Special Education, as well as in the private one.

Key Words: parents, children with special educational needs, music, resilience, cross-sectional study

Introduction

A great part of the international literature refers to the benefits of creative arts therapies, such as music interventions, on the quality of life of children with special educational needs (SEN),

such as Autism Spectrum Disorder (Stratou et al., 2023), intellectual disability, general learning disabilities, Down syndrome, hearing and vision impairments or other disabilities (Mawby, 2015, Shi et al., 2016, Mayer-Benarous et al., 2021).

As far as their parents are concerned, there are many articles referring to their mental strength and resilience (Bradshaw et al., 2019), yet, only few studies focus on self-empowerment and anti-stress methods, that may ameliorate their emotional and psychological state.

Generally speaking, all the parents having children identified with SEN, face similar feelings, such as shock, denial, guilt, sadness, anger and intense anxiety, especially in the initial phase of their children's diagnosis (Makino et al., 2021).

No matter how many challenges they meet on a daily basis, for example relationship problems, financial hardships and social difficulties, most of the parents don't give up fighting for a better life for their children. As a result, resilience constitutes a combination of internal factors, like emotional and mental skills, as well as of external parameters, like friendships and strong social bonds in general (Manicacci et al., 2019, Pastor-Cerezuela et al., 2020).

Until today, there has not been a study examining the effects of familiar music on resilience of parents, who have children with SEN. There have been only a few international studies, regarding the impact of specific stress coping strategies on parents' resilience (Peer & Hillman, 2014, Robinson, 2017). From another perspective, Shaughnessy examined how supporting musical play affects interaction between children with Autism Spectrum Disorder and their families, as well as the quality of their lives (Shaughnessy et al., 2023).

Regarding the scientific attempts have been conducted on this field in Greece, they are limited too. For instance, Veloglou based on a different form of art to music, investigated the impact of devised theatre on resilience of parents, who have children identified with SEN (Veloglou, 2023). Moreover, Kallianidou focused on main difficulties mothers of children with Autism Spectrum Disorder face and collected their suggestions for improving their family's quality of life. Taking into consideration financial hardships, family and social problems, psychological exhaustion and educational barriers mothers meet daily, they referred exclusively to parent counseling and in

some cases, to individual psychotherapy sessions, in order to enhance their resilience (Kallianidou, 2023).

Theoretical framework of this study is grounded on the principle that, listening to music may reduce anxiety of different target groups (Harney et al., 2023). Parents who have children identified with SEN, worry about their complex needs satisfaction, as well as for the future of their children. As a result, they experience fear and intense anxiety (Makino et al., 2021), while very often, they suffer from emotional exhaustion, even depression. The majority of them addresses mental health providers for counseling (Kallianidou, 2023), yet, they ignore self-administered interventions, that can be very useful for stress coping. Music listening constitutes such a flexible, noninvasive and inexpensive means.

In our study, we assessed the effects of familiar music on resilience of parents who have children with SEN and music listening was used, as a complementary approach of their emotional expression and self-empowerment.

Methods

Study Design: The study was a cross-sectional study. It was conducted from 1st March to 31th May of 2024. The sample included 40 parents with children with SEN, based on convenience sampling. In particular, it was a mixed sample consisting of parents with children with SEN, serving in a Military Hospital of Athens, as well as of parents whom children with SEN, were enrolled in a Private Special Education Center in Korydallos, Piraeus and in a Private Center of Creative Activities for Children with Special Needs in Keratsini, Piraeus. Participants were informed about all the stages of the study and gave their written consent.

Study population: The study population consisted of 40 parents with children with SEN, that met the following eligibility criteria: a) 18 years of age or older, b) biological parents of one or more children with SEN, regardless of their age and diagnosis, c) caregivers/ parents who had the guardianship rights to the child or children with SEN, in a single parent family, d) normal state of consciousness (Glasgow Coma Scale:15), e) parents of one or more children

with SEN, who were refugees or immigrants and spoke Greek fluently, a) music listeners and b) willing and able to consent. Type of music was not included in the eligibility criteria, since all the musical preferences of the parents were accepted.

Exclusion criteria of the study were: a) hearing impairment, b) cognitive deficits, c) serious mental disorders, d) parents of one or more children with SEN, who were refugees or immigrants and didn't speak Greek fluently, f) persons with substance use disorder and g) not willing to consent. Forty-two parents were eligible and 40 of them were the participants.

Measures: In our study, the independent variable was familiar music listening, while the dependent variable was parents' resilience. A self-administered questionnaire was used for data collection. This tool consisted of 5 different parts, that covered: a) the demographic characteristics of the parents, b) their musical preferences, c) the Greek version of Brief Resilience Scale questionnaire (BRS), d) the eventual relation between music and resilience and e) other sources of parents' self-empowerment. The questionnaire consisted of 28 questions in total.

Demographic data of the participants were based on 6 questions, concerning their gender, age, nationality, marital status, education and their employment status. Next part of the questionnaire, including 7 questions (number of children, number of children with SEN, age of children with SEN, diagnosis type, assessment process, special education setting and type of treatment), was related to the profile of children with SEN, as well as to the special education approach implemented for each case.

Besides demographic information, 2 questions were focused exclusively on parents' psycho-emotional needs. More specifically, they answered if they received psychological help and/or emotional support in a formal way. As regards their musical preferences, 3 questions were used in total. On the one hand, participants were asked in a five-point Likert-type scale, how often (not at all, once or twice a week, three or four times a week, more than four times a week, every day) and how calm they felt (not at all, little, somewhat, much, very much) when listening to their favorite music. On the other

hand, the reasons for which they did not listen to music, were defined according to a multiple-choice question.

Next 6 questions were crucial for parents' resilience (Galanis et al. 2023) evaluation, referring to the 6 items of the Greek version of Brief Resilience Scale questionnaire (BRS). BRS questionnaire is translated and validated in Greek language (Kyriazos et al., 2018) and it assesses one's ability to bounce back after a stressful or traumatic event (Smith, et al., 2008). Since resilience shows one's ability to cope with difficulties, BRS constitutes a simple, as well as useful tool for estimating this potential. In our study, internal consistency reliability of the questionnaire, was calculated by Cronbach's coefficient alpha and was found 0.842, which was considered acceptable.

BRS includes three items with positive phrases ("I tend to bounce back quickly after hard times", "It does not take me long to recover from a stressful event" and "I usually come through difficult times with little trouble"), as well as three items with negative ones ("I have a hard time making it through stressful events", "It is hard for me to snap back when something bad happens" and "I tend to take a long time to get over set-backs in my life"). For each question of BRS, there are answers on a five-point Likert scale (1: strongly disagree, 2: disagree, 3: neutral, 4: agree, 5: strongly agree). Total score ranges from 1 to 5 (a value equal to 1, indicates a low level of resilience, while a value equal to 5, reflects a high level).

Next part of the self-administered questionnaire consists of 3 questions, that examine the eventual relation between music and resilience ("Listening to my favorite music, I have a better mood and I tend to bounce back more quickly after hard times", "Listening to my favorite music, I have a better mood and I face more easily stressful events" and "Listening to my favorite music, I feel empowered and I handle difficult times in a more optimistic way").

Last but not least, 28th question focuses on other sources of parents' self-empowerment. More specifically, this part of the questionnaire examines the importance of: a) self strength, b) love towards one's child/children, c) family compassion, d) friends as well as social support,

e) faith in God, f) relaxing activities and g) trust in the welfare state and social institutions.

Statistical analysis: We present categorical variables as numbers (n) and percentages (%), and continuous variables with mean, standard deviation (SD), median, minimum value and maximum value. Spearman's correlation coefficients revealed the correlation between music and parents' resilience. P-values less than 0.05 were considered as statistically significant. We used the IBM SPSS 28.0 (IBM Corp. Released 2021. IBM SPSS Statistics for Windows, Version 28.0. Armonk, NY: IBM Corp) for the analysis.

Results

Sociodemographic characteristics as well as music profile of parents are presented in Table 1 and 3 respectively, while special education needs of their children are shown in Table 2. The median age of parents was 43.8 years. The larger percentage of the sample consisted of women (65%). Its overwhelming majority formed of employed parents (92.5%) and all the participants were Greek. 87.5% of parents were

married, 52.5% had got two children and nearly all the families, had only one child with special educational needs (95%). The median age of children with SEN was 11 years. The most common diagnoses were Attention Deficit Hyperactivity Disorder (22.5%), Autism Spectrum Disorder (20%), Pervasive Developmental Disorder not otherwise specified (17.5%), Dyslexia (15%), as well as general learning disabilities (12.5%). 67.5% of parents delivered a formal mental/emotional support. In particular, 62.5% of the sample submitted to a supportive parenting counseling program.

All the parents answered that listening to their favorite music, makes them feel relaxed. More specifically, 42.5% of them feel quite relaxed, 45% feel very relaxed and 12.5% feel moderately relaxed. In addition, 32.5% of them answered that listening to their favorite music 1-2 times/ week, 25% listen to their favorite music 3-4 times/ week, 20% listen to their favorite music every day and 17.5% listen to their favorite music >4 times/ week.

Table 1. Sociodemographic characteristics of parents

Characteristics	N	%
Gender		
Female	26	65
Male	14	35
Nationality		
Greek	40	100
Other	0	0
Marital status		
Married	35	87.5
Single/Divorced/Widowed	5	12.5
Age ^a	43.8	5.7

Educational level		
Elementary/Senior high school graduate	1	2.5
High school graduate	23	57.5
Technological Educational Institute graduate	5	12.5
College graduate	6	15
Postgraduate	5	12.5
Employment status		
Household	2	5
Employee/Worker	34	85
Unemployed	1	2.5
Freelancer	3	7.5
Total number of children		
1	12	30
2	21	52.5
3	7	17.5

^a Mean, standard deviation

Table 2. Special educational needs and parents' psycho-emotional needs

Characteristics	N	%
Number of children with SEN		
1	38	95
2	2	5
Age of children with SEN ^a	11.0	4.5
Assessment process		
Interdisciplinary Assessment, Counseling and Support Centers	32	80

Private sector	8	20
Diagnosis type		
Attention Deficit Hyperactivity Disorder	9	22.5
Pervasive Developmental Disorder not otherwise specified	7	17.5
Autism Spectrum Disorder	8	20
Emotional/ Behavioral Disorder	2	5
Asperger Syndrome	2	5
Dyslexia	6	15
Moderate Mental Retardation	1	2.5
General Learning Disabilities	5	12.5
Special Education setting		
Special school	7	17.5
Integration Department in a Mainstream school	9	22.5
Parallel Support in a Mainstream school	11	27.5
Public or Private Treatment Center	28	70
Type of treatment provided to children		
Reinforcement	18	45
Speech-Language therapy	28	70
Occupational therapy	20	50
Psychotherapy	15	37.5
Arts & creative therapies (e.g. painting, music therapy, drama therapy)	7	17.5
As a parent of children with SEN, do you deliver a formal mental/emotional support?		
No	13	32.5
Yes	27	67.5
Type of mental/emotional support delivered from parents		

Supportive parenting counseling program	25	62.5
Joining a group/association for parents who have a child or children with Dyslexia/Autism Spectrum Disorder e.t.c.	2	5

^a Mean, standard deviation

Table 3. Music profile of parents

Characteristics	N	%
How calm do you feel, when listening to your favorite music?		
Not at all	0	0
Little	0	0
Somewhat	5	12.5
Much	17	42.5
Very much	18	45
How often do you listen to your favorite music?		
Not at all	2	5
1-2 times/ week	13	32.5
3-4 times/ week	10	25
>4 times/ week	7	17.5
Every day	8	20

Parents' resilience

According to Brief Resilience Scale, resilience mean score was 3.4. This score signifies a moderate level of parents' resilience. Another important result of the study is that, the overwhelming majority of the sample, stated that love towards one' s child/children constitutes the main source of self-

empowerment (90%). Self strength (75%), faith in God (72.5%), family compassion (62.5%), friends as well as social support (37.5%) and relaxing activities such as listening to music (32.5%), were reported by descending order of importance. Last but not least, only 5% of the sample, stated that felt trust in the welfare state and social institutions, as a complementary source of self-empowerment.

Table 4. Parents' answers about the effects of music on their resilience

Characteristics	N	%
Listening to my favorite music, I have a better mood and I tend to bounce back more quickly after hard times		
Strongly disagree	1	2.5
Disagree	3	7.5
Neutral	9	22.5
Agree	22	55
Strongly agree	5	12.5
Listening to my favorite music, I have a better mood and I face more easily stressful events		
Strongly disagree	1	2.5
Disagree	4	10
Neutral	6	15
Agree	23	57.5
Strongly agree	6	15
Listening to my favorite music, I feel empowered and I handle difficult times in a more optimistic way		
Strongly disagree	1	2.5
Disagree	4	10
Neutral	7	17.5
Agree	22	55
Strongly agree	6	15

Effects of music on parents' resilience

As regards parents' answers about the effects of music on their resilience, they are shown in Table 4. In particular, 72.5% of participants answered that got a better mood and faced stressful events more easily, when listening to their favorite music, 70% of participants felt more empowered and faced difficult times in life, more optimistically and 67.5% of them, had a better mood and tended to bounce back, more quickly after hard times. All the parents who gave previous answers, had a higher level of resilience. In addition, a higher resilience score was observed in parents who answered, that felt calmer when listening to their favorite music. A statistically significant relation was found between frequency of listening to music and parents' resilience ($p=0.002$).

The positive correlation between music and parents' resilience is shown in Table 5, as well. Final results of the study are the following:

- Parents who feel calmer when listening to their favorite music, have a higher resilience.
- Parents who listen to their favorite music more often, have a higher resilience.
- Parents who answered that listening to their favorite music, had a better mood and tended to bounce back more quickly after hard times, have a higher resilience.
- Parents who answered that listening to their favorite music, got a better mood and faced stressful events more easily, have a higher resilience.
- Parents who answered that listening to their favorite music, felt more empowered and faced difficult times in life more optimistically, have a higher resilience.

Table 5. Spearman's correlation coefficients revealing the correlation between music and parents' resilience

	Total score of resilience according to Brief Resilience Scale	
	Spearman's correlation coefficients	p-value
How calm do you feel, when listening to your favorite music?	0.13	0.44
How often do you listen to your favorite music?	0.47	0.002
Listening to your favorite music, do you have a better mood and tend to bounce back more quickly after hard times?	0.29	0.07
Listening to your favorite music, do you have a better mood and face more easily stressful events?	0.03	0.87

Listening to your favorite music, do you feel empowered and handle difficult times in a more optimistic way?	0.10	0.54
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Discussion

We concluded that listening to familiar music may enhance resilience of parents, who have children with special educational needs. A statistically significant relation was found between frequency of listening to music and parents' resilience ($p=0.002$). According to Brief Resilience Scale, resilience mean score was 3.4. This score signifies a moderate level of parents' resilience in general. Yet, a higher resilience score was observed in parents who answered, that felt calmer and more empowered, faced stressful events more easily and optimistically, got a better mood and tended to bounce back, more quickly after hard times, when listening to their favorite music. More specifically, 72.5% of participants answered that listening to familiar music, had a better mood and faced more easily stressful events, 70% of participants answered that listening to familiar music, felt empowered and handled difficult times in a more optimistic way and 67.5% of participants answered that listening to familiar music, had a better mood and tended to bounce back more quickly after hard times.

Low to moderate level of parents' resilience, who have children identified with SEN, is confirmed by two recent studies conducted by Veloglou (2023) and Kallianidou (2023) in Greece. In particular, Veloglou based on a quasi-experimental action-research, examined the impact of devised theatre, as a means to empower the resilience of sixteen mothers of children with SEN. Participants were divided in two groups (eight mothers in the control group and eight mothers in the experimental group). It was noted that, persons of both groups felt emotionally tired at baseline, a finding that reflects a series of eventual challenges, mothers have to face every day (e.g. workplace problems, spouse's unemployment, elderly

care, barriers in accessing social welfare benefits etc.).

In addition, Kallianidou based on a qualitative research, examined the difficulties parents of children with Autism Spectrum Disorder (ASD) face and have a negative impact on their resilience. More specifically, ten mothers of children with ASD participated in a semi-structured interview, pointing out several problems they meet on a practical, psychological, family, social and educational level, such as financial hardships, the lack of empathy, bureaucracy and the dysfunction of schools, as well as of Interdisciplinary Assessment, Counseling and Support Centers (Kallianidou, 2023).

In fact, all these difficulties constitute systemic problems parents of children with SEN must handle not only in Greek society, but also in global community (Ames & Greer, 2021). As a result, moderate level of participants' resilience detected in our study at baseline, is an expected finding.

Considering the struggle of parents to seek for satisfying solutions, it doesn't surprise us that only 5% of them, stated that felt trust in the welfare state and social institutions. On the other hand, the overwhelming majority of the sample, stated that love towards one's child/children constitutes the main source of self-empowerment (90%). Self strength (75%), faith in God (72.5%), family compassion (62.5%), friends as well as social support (37.5%) and relaxing activities such as listening to music (32.5%), were reported by descending order of importance.

According to these results, it's an unexpected finding that only a low percentage of participants, considers friends and relaxing activities, important sources of self-

empowerment (37.5% and 32.5% respectively). Regarding the first parameter, it is obvious that human relations like friendships, were affected negatively in post-covid era (Ghosh & Halder, 2020).

Besides, social stereotypes about people with disabilities (Kallianidou, 2023), lead often parents of children with SEN, to be more introverted as far as their personal life is concerned.

A similar conclusion emerges for the second parameter, regarding relaxing activities such as music listening. More specifically, although 67.5% of participants stated that they deliver a formal mental/emotional support, it seems that calmness and serenity don't constitute basic priorities of their daily life. Without doubt, minimizing the importance of their mental and emotional balance, is not a single event, but a social phenomenon. The absence of a holistic family therapy model, that focuses both on children and parents' needs satisfaction, as well as the lack of spare time, could interpret participants' answer regarding relaxing activities.

Furthermore, we confirmed the positive impact of music on parents' mental health. Taking into consideration that all of them stated that felt calmer, when listening to familiar music, proves the vital role of music as a means of relaxing and stress coping. Harney et al. conducted a systematic review and meta-analysis of 24 controlled studies, examining the effects of music on state anxiety of 2.062 participants. In that case, it was proven that music listening may reduce anxiety levels in a range of groups (Harney et al., 2023).

Last but not least, a statistically significant relation was detected between frequency of music listening and parents' resilience ($p=0.002$). In particular, Spearman's correlation coefficients revealed that the more often parents listen to music, the higher resilience they develop. Yet, only 20% of them, stated that listen to familiar music every day. As a result, they lack the maximum possible benefits of music listening, regarding their mental health. Additionally, 32.5% of the participants stated that listen to music 1-2 times/week, 25% of

them listen to music 3-4 times/week and 17.5% of them listen to music >4 times/week. On the other hand, 5% of the sample stated that does not listen to music at all.

As regards international literature, Raglio et al. conducted a randomized controlled pilot trial, investigating the effects of music on work-related stress of 45 healthcare professionals. This study showed that daily use of music in the workplace, may reduce stress levels of employees (Raglio et al., 2019). Similarly, it is supported that systematic use of music as a therapeutic tool, based on the specific needs of each person or patient, could reinforce its positive impact (Bradt & Dileo, 2014, Agres et al., 2021).

There were also limitations in our study. Firstly, it was a cross-sectional study, based on convenience sampling and non randomization method was used. Secondly, the study population was small. Furthermore, we did not define music preferences of parents. As regards music effects on resilience, we did not examine them on a long term basis. Despite the limitations, this study constitutes a first attempt in our country, that may stimulate Greek education system and welfare state's interest in improving parents of children with SEN quality of life. From a psychological standpoint, listening to familiar music may enhance resilience of parents, who have children with SEN. Thus, it can be used as a fundamental element of parenting counseling, on the basis of a holistic family therapy model. Since it is a noninvasive and inexpensive intervention, it could be widely implemented in the private sector (Special Education Centers and Camps), as well as in the public one (Special Education Schools and Interdisciplinary Assessment, Counseling and Support Centers). Focusing on parents' mental health balance, constitutes an important initiative that will decrease mental health care expenditures in total. Future researches, especially randomized controlled trials should be conducted, in order to enhance evidence-based practice.

References

Agres, K., Schaefer, R., Volk, A., Van Hooren, S., Holzapfel, A., Dalla Bella, Müller, M., De Witte,

- M., Herremans, D., Ramirez Melendez, R., Neerincx, M., Ruiz, S., Meredith, D., Dimitriadis, T. & Magee, W. (2021). 'Music, computing and health: A roadmap for the current and future roles of music technology for healthcare and well-being', *Music & Science*, 4, 1-32.
- Ames, M. & Greer, S. (2021). 'Renegotiating resilience, redefining resourcefulness', *Research in Drama Education: RiDE*, 26(1), 1-8.
- Bradshaw, S., Bem, D., Shaw, K., Taylor, B., Chiswell, C., Salama, M., Bassett, E., Kaur, G. & Cummins, C. (2019). 'Improving health, wellbeing and parenting skills in parents of children with special health care needs and medical complexity-A scoping review', *BMC Pediatrics*, 19(301), 1-11.
- Bradt J. & Dileo C. (2014). Music interventions for mechanically ventilated patients. *Cochrane database of systematic reviews*, 12, 1-65.
- Galanis, P., Katsiroumpa, A., Sourtzi, P., Siskou, O., Konstantakopoulou, O., Katsoulas, T. & Kaitelidou, D. (2023). 'COVID-19-related burnout and intention of fully vaccinated individuals to get a booster dose: The mediating role of resilience', *Vaccines*, 11(62), 1-13.
- Ghosh, S. & Halder, S. (2020). 'Challenges in interpersonal relation among youth in post pandemic condition', *Int. J. Sci. Res* 9 (9), 32-535.
- Harney, C., Johnson, J., Bailes, F. & Havelka, J. (2023). 'Is music listening an effective intervention for reducing anxiety? A systematic review and meta-analysis of controlled studies', *Musicae Scientiae*, 27(2), 278-298.
- Kallianidou, A. (2023). *The difficulties parents of children with Autism Spectrum Disorder (ASD) face-Proposals*. Dissertation, Hellenic Open University.
- Kyriazos, T., Stalikas, A., Prassa, K., Galanakis, M., Yotsidi, V. & Lakioti, A. (2018). 'Psychometric evidence of the Brief Resilience Scale (BRS) and Modeling distinctiveness of resilience from depression and stress', *Psychology*, 9, 1828-1857.
- Makino, A., Hartman, L., King, G., Wong, P.Y. & Penner, M. (2021). 'Parent experiences of Autism Spectrum Disorder diagnosis: A scoping review. *Rev. J. Autism Dev. Disord*, 8(3), 267-284.
- Manicacci, M., Bouteyre, E., Despax, J. & Bréjard, V. (2019). 'Involvement of emotional intelligence in resilience and coping in mothers of autistic children'. *Review Journal of Autism and Developmental Disorders*, 49(11), 4646-4657.
- Mawby, S. (2015). *Music education and Music therapy in schools for children with special educational needs: similarities, crossovers and distinctions*. School of music, University of Leeds, UK.
- Mayer-Benarous, H., Benarous, X., Vonthron, F. & Cohen, D. (2021). 'Music therapy for children with Autistic Spectrum Disorder and/or other neurodevelopmental disorders: A systematic review', *Frontiers in Psychiatry*, 12, 1-21.
- Pastor-Cerezuela, G., Fernández-Andrés, M.-I., Pérez-Molina, D. & Tijeras-Iborra, A. (2020). 'Parental stress and resilience in Autism Spectrum Disorder and Down syndrome', *Journal of Family Issues*, 42(1), 3-26.
- Peer, J. & Hillman, S. (2014). 'Stress and resilience for parents of children with intellectual and developmental disabilities: A review of key factors and recommendations for practitioners', *Policy Pract. Intellect. Disabil*, 11(2), 92-98.
- Raglio, A., Bellandi, D., Gianotti, M., Zancchi, E., Gnesi, M., Monti, M.C., Montomoli, C., Vico, F., Imbriani, C., Giorgi, I. & Imbriani, M. (2019). 'Daily music listening to reduce work-related stress: a randomized controlled pilot trial', *Journal of Public Health*, 42(1), 82-88.
- Robinson, P. (2017). *Addressing stress coping strategies in mothers of children with Autism Spectrum Disorder (ASD)*. Dissertation, Capella University, School of Nursing & Health Sciences.
- Shaughnessy, C., Ockelford, A., Bonneville-Roussy, A. & Mann, W. (2023). 'Building musical lives: The impact of supporting musical play in the everyday lives of autistic children and their families', *Psychol Music*, 52(3), 267-283.
- Shi, Z. M., Lin, G.H. & Xie, Q. (2016). 'Effects of Music therapy on mood, language, behavior, and social skills in children with autism: A meta-analysis', *Chin. Nurs. Res*, 3, 137-141.
- Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P. & Bernard, J. (2008). 'The Brief Resilience Scale: Assessing the ability to bounce back', *Int. J. Behav. Med*, 15(3), 194-200.
- Stratou, E., Koinis, A., Gamvroula, A., Antonopoulos, S. & Saridi, M. (2023). 'The effect of drama in education on social skills development of children with Autism Spectrum Disorder (ASD)', *Int. J. Caring Sci*, 16 (1), 464-473.
- Veloglou, M. (2023). *Devised theatre as a means to empower the resilience of parents of children with special educational needs*. Dissertation, University of Peloponnese.