Exploring the role of music listening in cancer care: A systematic literature review

Sarah Harrison
Breast Care Centre of Excellence
Netcare Milpark Hospital
Johannesburg, South Africa
sarahjeanmusictherapy@gmail.com

Received: 17 October 2025

Revised: 3 December 2025

Accepted: 15 December 2025

Bio

Sarah Jean Harrison is a qualified music therapist currently working at the Milpark Breast Care Centre. Her clinical work focuses on supporting individuals with breast cancer through therapeutic music interventions before, during (in collaboration with Dr Blumenthal), and after surgery, as part of the multidisciplinary BCCE team led by Prof. Carol Benn.

Abstract

Cancer is a leading global health concern, affecting not only physical health but also psychological, social, emotional and spiritual well-being. Music listening has been explored as a supportive, non-pharmacological intervention within oncology care. The objective of this systematic literature review was to examine the role of music listening in cancer care, focusing on (1) the types of music listening interventions used and (2) the roles and outcomes of such interventions for individuals with cancer. The methods used were a systematic literature review. Literature was systematically searched across Répertoire International de Littérature Musicale (RILM), ScienceDirect, Music Periodicals Database, PsycINFO, Sage Journals, Google Scholar, and PubMed (2000–2024). Inclusion criteria: published literature, peer-reviewed studies involving individuals with cancer and interventions centred on music listening (e.g., pre-recorded, live, guided imagery, and music). Exclusion

ISSN 2960-1614

criteria: non-English, pre-2000, systematic reviews, unpublished literature, meta-analyses, and studies not isolating music listening. Thirteen studies met the criteria. Data were extracted and analysed thematically. Guided imagery and music (GIM), pre-recorded music (e.g., CD/MP3), live music listening, receptive music therapy, music-and-imagery, and group listening session interventions were conducted that ranged from 12 minutes to two hours, most commonly 30 minutes. Intervention outcomes clustered into five themes: (1) symptom reduction (pain, anxiety, depression, nausea), (2) benefits of music listening as a non-pharmacological intervention, (3) coping and enhancement of quality of life, (4) cognitive benefits (memory, distraction from intrusive thoughts, and (5) connectedness (intrapersonal, interpersonal, transpersonal). The conclusions drawn from the results are that music listening is a safe, feasible, cost-effective, and non-invasive adjunct to oncology care. Despite promising results, limitations such as small sample sizes and heterogeneity of study design restrict generalisability. Future research should utilise larger, more rigorous trials, explore digital/streaming music interventions, and evaluate long-term effects.

Keywords: Music listening, cancer care, systematic literature review, music therapy

Introduction

Cancer remains one of the most pressing global health challenges, responsible for an estimated 10 million deaths annually (World Health Organization, 2021). Beyond its physiological burden, cancer profoundly impacts individuals' psychological, emotional, and social well-being (Li et al., 2013). As a result, integrative and multidisciplinary approaches to treatment have gained increasing recognition, incorporating not only medical but also psycho-social interventions. Among these, music therapy and music medicine have been widely explored as complementary modalities that support patients' holistic needs throughout the cancer journey (Cassileth & Deng, 2004). A growing body research demonstrate that music-based therapies can reduce anxiety, alleviate depressive symptoms, and enhance cancer patients' comfort and general quality of life (Bradt et al., 2016; Loomba et al., 2018; Nair et al., 2016; Singh & Chaturvedi, 2015; Stanczyk, 2011), including a study that implemented the Bonny Method of Guided Imagery and Music (BMGIM) in cancer care within the South African context (Bhana, 2016). Within this

broader field, music listening, also referred to as receptive music therapy, plays a central role. Music listening is non-invasive, cost-effective, and adaptable to a wide range of healthcare contexts (McFerran & Grocke, 2022). It can be facilitated not only by credentialed music therapists but also by nurses and other healthcare professionals, thereby increasing its accessibility within oncology settings (da Silva Santa et al., 2021; Bradt et al., 2016).

Existing evidence suggests that music listening can foster relaxation, elevate mood, and enhance coping mechanisms for individuals undergoing cancer treatment (Bilgiç & Acaroğlu, 2017; Lima et al., 2020; Spilioti et al., 2017). However, despite numerous studies addressing music therapy more broadly, there remains a limited synthesis of research focusing specifically on music listening interventions in cancer care. While systematic reviews have explored the impact of music therapy on symptom management (Bradt et al., 2016), few have examined the distinctive mechanisms, accessibility, and clinical outcomes of listening-based approaches. This represents a critical gap in understanding how receptive forms of music engagement contribute to psychological and emotional well-being in oncology populations.

Addressing this gap is particularly relevant as patients with cancer often face multiple, co-occurring challenges, including uncertainty, symptom burden, and social isolation (Hui, 2014; Altun & Sonkaya, 2018; Rani & Bayu, 2021; Sano & Fushimi, 2017; Vardy et al., 2022). A systematic examination of the literature is thus essential to map how music listening is applied, evaluated, and experienced within cancer care.

The present study aimed to explore the body of literature on the use of music listening in cancer care, with the objective of identifying the types of interventions employed, their reported outcomes, and their role in supporting patient well-being. The research questions were informed by specifying the population of interest (cancer patients), identifying the intervention (music listening), and defining the outcomes in terms of potential benefits. The research sought to address two primary questions:

1. What types of music-listening interventions are used in cancer care?
2. What role can music listening play for individuals diagnosed with cancer?

Method

The Research Ethics Committee of the Faculty of Humanities at the University of Pretoria provided ethics permission for this work. This study followed a systematic literature review design (Nightingale, 2009) to explore the role of music listening in cancer care. An integrative review approach was applied to include quantitative, qualitative, and mixed-methods studies (Souza et al., 2010). The review followed a systematic protocol to ensure transparency and rigour (Bettany-Saltikov, 2010), applying predefined inclusion and exclusion criteria. Inclusion criteria comprised qualitative, quantitative, and mixed-methods studies published in English (or translated into English) between 2000 and 2024 that directly addressed the research questions and objectives of this review. Exclusion criteria included non-English publications, studies published before 2000, systematic reviews, meta-analyses, and studies that did not isolate music listening as an intervention. The literature search was conducted using the keywords 'music listening' AND/OR 'receptive music therapy' in combination with 'cancer'. Literature published between 2000 and 2024 was searched across Répertoire International de Littérature Musicale (RILM), ScienceDirect, Music Periodicals Database, PsycINFO, Sage Journals, Google Scholar, and PubMed.

During the data collection (see Figure 1) period, which concluded in November 2024, eligible documents were independently screened and critically appraised by two reviewers: a research supervisor and an information specialist. Any discrepancies in the assessment were resolved through discussion, resulting in a consensus on the studies to be included. There were 13 studies that met the inclusion criteria (see Table 1), comprising seven quantitative, three qualitative, and three mixed-methods designs. Data were extracted into an analysis matrix and thematically analysed following Clarke and Braun's (2017) framework. To ensure methodological rigour and transparency, the quality of each study was appraised using appropriate tools according to its design. The methodological quality, clarity, and applicability of both quantitative and qualitative research were evaluated using the Specialist Unit for Review Evidence (SURE) checklist (Higgins & Green, 2011), which focused on elements such as study design, bias, data collection, and analysis. The Mixed Methods Appraisal Tool (Hong et al., 2019) was employed for studies using mixed-methods designs, as it allows for a comprehensive and integrated assessment of the quality of both qualitative

and quantitative components within a single framework. Together, these tools ensured a systematic and balanced evaluation of study quality across diverse methodologies.

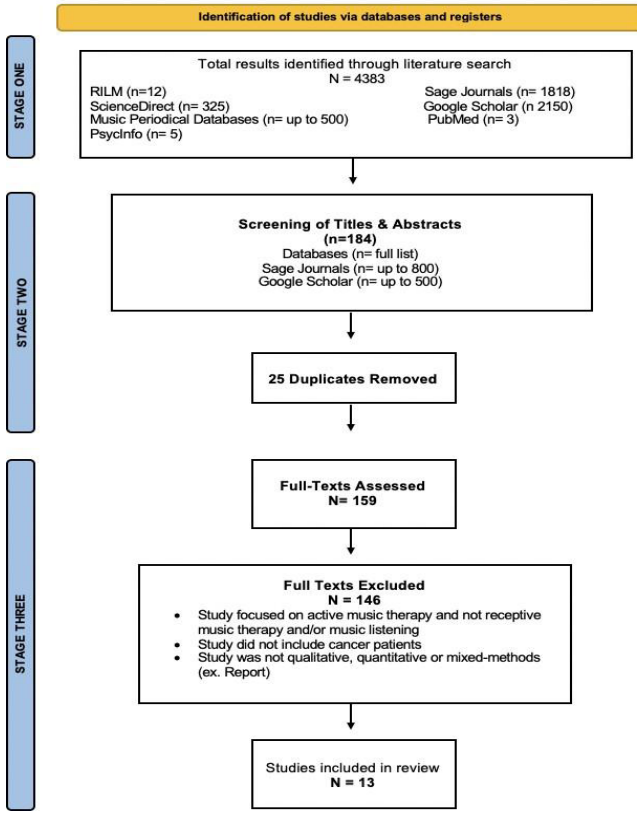

Figure 1: Flowchart of the data collection process

Table 1: Studies selected for the review

Study no.	Study Title	Author(s) and date	Country
1	Effects of listening to music on the comfort of chemotherapy patients	Bilgiç & Acaroğlu, 2017	Turkey

Study no.	Study Title	Author(s) and date	Country
2	Imagery, metaphor, and perceived outcome in six cancer survivors' Bonny Method of Guided Imagery and Music (BMGIM) therapy	Bonde, 2007	Denmark
3	Effectiveness of music therapy for anxiety reduction in women with breast cancer in chemotherapy treatment	Bulfone et al., 2009	Italy
4	Differences between supportive music and imagery and music listening during outpatient chemotherapy and potential moderators of treatment effects	Burns et al., 2018	United States of America
5	Listening to music as part of treatment for breast cancer: A qualitative content analysis of patients' listening logs	Elwafi & Wheeler, 2016	United States of America
6	The effect of music and imagery to induce relaxation and reduce nausea and emesis in patients with cancer undergoing chemotherapy treatment	Gimeno, 2010	United States of America
7	Effect of music therapy on chemotherapy anticipatory symptoms in adolescents: A mixed methods study	Giordano et al., 2024	Italy
8	A randomised control trial of meditation compared to music listening to improve cognitive function for breast cancer survivors: Feasibility and acceptability	Henneghan et al., 2020	United States of America
9	Mitigation of chemotherapy-induced nausea using adjunct music listening: A pilot study	Kiernan & Vallerand, 2023	United States of America
10	Receptive music therapy versus group music therapy with breast cancer patients hospitalised for surgery	Lagattolla et al., 2023	Italy
11	Effects of passive music therapy on anxiety and vital signs in lung cancer patients undergoing peripherally inserted central catheter placement procedure	Mou et al., 2020	China
12	The effect of music on anxiety, pain levels, and physiological parameters in women undergoing brachytherapy: A randomised controlled trial	Ünal Toprak et al., 2024	Turkey

Study no.	Study Title	Author(s) and date	Country
13	The effects of music listening on pain perception and coping with breast cancer	Vilč et al., 2023	Croatia

Data extraction

Data extraction was conducted systematically to capture key information from each of the 13 selected studies (see Table 2). Relevant details were recorded, including study titles, methodologies, and research designs, participant characteristics, data collection methods, research objectives, and descriptions of the interventions and procedures used. Additionally, the results and conclusions reported in each study were extracted to provide a comprehensive understanding of the outcomes. The extracted information was then organised to allow comparison across studies and to facilitate the identification of patterns, intervention types, and key themes. This structured approach ensured that all relevant data were consistently captured and prepared for subsequent analysis and synthesis.

Results

The thematic analysis of the findings of the included studies revealed two primary categories: types of music-listening interventions and the roles of music listening for individuals with cancer. In terms of intervention types, relaxation-based listening was commonly reported, often involving pre-recorded calming music, such as classical or instrumental tracks, delivered during chemotherapy sessions or prior to medical procedures (Bilgiç & Acaroğlu, 2017; Bulfone et al., 2009). Personalised playlists, tailored to individual preferences, were shown to enhance engagement, relaxation, and coping (Elwafi & Wheeler, 2016; Kiernan & Vallerand, 2023). Some interventions combined music with imagery or narrative techniques, such as guided imagery and music (GIM) and music, drawing, and narrative (MDN), which supported reflective or expressive processing and promoted deeper psychological engagement (Bonde, 2007; Giordano et al., 2024).

Regarding the roles of music listening (see Table 3), a consistent finding across studies was symptom reduction, with participants reporting decreases in anxiety, pain, nausea, and fatigue (Ünal Toprak et al., 2024; Mou et al., 2020; Bilgiç & Acaroğlu, 2017). Cognitive benefits were also noted, with

Table 2: Data extraction of selected studies

Author and year	Title	Participants	Methodology and design	Type of intervention	Type of intervention details
Bilgiç & Acaroğlu, 2017	Effects of listening to music on the comfort of chemotherapy patients	N=70 (18 years and older)	*Quantitative* Quasi-experimental (two-group pre-test and post-test)	Music listening	Listening to music for 20 to 30 minutes during chemotherapy via a CD featuring violin, harp and wave sounds.
Bonde, 2007	Imagery, metaphor, and perceived outcome in six cancer survivors' Bonny Method of Guided Imagery and Music (BMGIM) therapy	N=6 (Only five completed)	*Qualitative*	Guided imagery and music (GIM)	Each participant had ten individual guided imagery and music sessions, which were conducted every two weeks. Each session was approximately two hours. Western classical music was used in this intervention.
Bulfone et al., 2009	Effectiveness of music therapy for anxiety reduction in women with breast cancer in chemotherapy treatment	N=60 (30 = music therapy group and 30 = control group)	*Quantitative* Clinical experimental design (randomised control group)	Music listening	The intervention group listened to music (classical compositions, new age, Celtic melodies and nature sounds) via a Walkman device with headphones 15 minutes before chemotherapy sessions.
Burns et al., 2018	Differences between supportive music and imagery and music listening during outpatient chemotherapy and potential moderators of treatment effects	N=76 (completed the post-test measures)	*Quantitative* Randomised controlled trial	Supportive music imagery and preferred music listening	Patients received 50-minute sessions where the supportive music and Imagery group used guided relaxation with recorded music. The music therapist selected pieces primarily from Western art music [classical] and new age genres), and the preferred music listening group listened to their chosen music (country, new age, 2000s [the decade of], Christian, jazz, 60s/70s, 80s/90s, classical [Western art music], Broadway, and spiritual) during infusion.

Author and year	Title	Participants	Methodology and design	Type of intervention	Type of intervention details
Elwafi & Wheeler, 2016	Listening to music as part of treatment for breast cancer: A qualitative content analysis of patients' listening logs	N=8	*Qualitative* Qualitative content analysis	Music listening	Patients were given CDs of the session's music to listen to daily and kept listening logs to record their reactions. Music genres used in the intervention include rock, soul, classic rock, folk, reggae, gospel, country, R&B, Motown, rap, pop rock, easy listening, instrumental jazz, blues, Celtic, show tunes, and acoustic rock.
Gimeno, 2010	The effect of music and imagery to induce relaxation and reduce nausea and emesis in patients with cancer undergoing chemotherapy treatment	N= 20	*Mixed-methodology* Repeated measures experimental design	Music and imagery (MI) and imagery (IO)	Each 60–90-minute session occurred over six weeks, with participants encouraged to practice relaxation techniques at home using CD recordings tailored to their session type. The music used primarily consisted of New Age music, characterised by slow tempi, repetitive musical themes, narrow melodic ranges, regular rhythms, and minimal instrumentation, with selections including nature sounds, guitar, flute, harp, piano, cello, and solo guitar.
Giordano et al., 2024	Effect of music therapy on chemotherapy anticipatory symptoms in adolescents: A mixed methods study	N= 10	*Mixed-methodology*	Guided imagery and music (GIM)	Sessions followed a structured procedure using an adapted version of the Bonny Method of Guided Imagery and Music (BMGIM), beginning with relaxation exercises and ending with guided music listening. This was conducted over eight months. Each participant had four sessions before chemotherapy treatment. The music used in this intervention included classical music from the Western tradition, pop, rock, new age, soundtracks, and light jazz, customised into playlists based on patients' preferences and specific musical elements.
Henneghan et al., 2020	A randomised control trial of meditation compared to music listening to improve cognitive function for breast cancer survivors: Feasibility and acceptability	N=31	*Quantitative*	Music listening	The music listening (ML) group listened to classical music selections by composers such as Mozart, Bach, and Beethoven for eight weeks and 12 minutes daily. Each participant recorded their daily practice in a log.

Author and year	Title	Participants	Methodology and design	Type of intervention	Type of intervention details
Kiernan & Vallerand, 2023	Mitigation of chemotherapy-induced nausea using adjunct music listening: A pilot study	N=12	*Mixed-methodology* Quasi-experimental	Music listening	The 12 participants listened to their preferred music daily for 30 minutes (whilst taking antiemetic medication) in a five-day music listening program that began two days after chemotherapy. The type of music was not discussed in the paper.
Lagattolla et al., 2023	Receptive music therapy versus group music therapy with breast cancer patients hospitalised for surgery	N=151	*Quantitative*	Receptive music therapy and group music therapy	MTri (individual/receptive music therapy)(60 min) included relaxation, pre-recorded music, improvisation, and feedback, while MTiGrp (group active-receptive integrated music therapy) (90 min) involved group improvisation, visualisation, singing, and reflection. The music chosen for the MTri group was designed to be soothing, featuring a predictable harmonic structure, a major key, and simple, repetitive elements, all without sudden dynamic shifts.
Mou et al., 2020	Effects of passive music therapy on anxiety and vital signs in lung cancer patients undergoing peripherally inserted central catheter placement procedure	N=300	*Quantitative*	Music listening	Patients spent about 30 minutes using wireless headphones to listen to peaceful music that had been pre-selected by patients. The music used in this study included classical, light, and folk genres, each chosen for its soothing melodies and pleasant rhythms, which are known to promote relaxation. The pieces featured a slow rhythm, low tones, and a tempo of 60–80 beats per minute, played at a controlled volume through wireless headphones. The patients listened to music during the entire catheterisation process, which lasted approximately 30 minutes.
Ünal Toprak et al., 2024	The effect of music on anxiety, pain levels, and physiological parameters in women undergoing brachytherapy: A randomised controlled trial	N=55	*Quantitative* Randomised control trial	Music listening	Participants in the music intervention group listened to calming pentatonic tunes through portable sound systems throughout the brachytherapy process, including during the application of the applicator and treatment.

Author and year	Title	Participants	Methodology and design	Type of intervention	Type of intervention details
Vilč et al., 2023	The effects of music listening on pain perception and coping with breast cancer	N=32	*Qualitative*	Music listening	Participants selected their preferred music (primarily local pop music) before surgery and listened to it via headphones twice daily during hospitalisation, with one 30-minute session on the first postoperative evening.

Table 3: An overview of the thematic analysis of the results of the selected studies

Theme 1	Categories	Codes (see Table 1 for studies)
Symptoms reduction	Anxiety reduction	Reduced anxiety was noted in Studies 1, 3, 4, 7, 10, and 11
	Decreased depression	Decreased depression was noted in Studies 1, 4, and 10.
	Stress reduction	Reduced stress was noted in Studies 8, 10 and 12.
	Addressing physical symptoms	Reduced chemotherapy-related pain, reduced nausea, and reduced fatigue, though not significantly. A difference was found in shortness of breath, which was noted in Study 1. Reduced discomfort and improved body awareness were noted in Study 4. Pain relief and less fatigue were reported in Study 5. Reduced heart rate, decreased nausea and vomiting, and that the interactive music listening intervention (IO) significantly reduced nausea compared to the music intervention (MI) and control group were observed in Study 6; similar effects were found for emesis and heart rate, with interactive music listening intervention being more effective for nausea than for emesis, and no difference noted in emesis reduction between music intervention and interactive music listening intervention. Reduced chemotherapy-induced nausea (CIN) was reported in Study 9. Lowered heart rate and systolic blood pressure after Peripherally Inserted Central Catheter (PICC) implantation were noted in Study 11. Reduced physical pain and improved physical condition (less discomfort) were observed in Study 13.

Theme 2	Category	Coding
Benefits of music listening as a non-pharmacological intervention	Benefits of music listening as a non-pharmacological intervention	A non-invasive and cost-effective approach was reported in Study 3. An effective intervention and pre-/post-session effectiveness were noted in Study 7. A feasible intervention was reported in Study 9. A cost-effective, safe, and effective intervention was observed in Study 11.
Theme 3	**Categories**	**Coding**
Coping and enhanced quality of life	Improved emotional state	Reduced emotional distress and improved overall mood were noted in Study 1. Enhanced emotional resilience was reported in Study 2. Emotional regulation and enhanced self-awareness were observed in Study 4. Improvements in emotional well-being were reported in Study 10, while Study 13 found improved emotional states.
	Promotes relaxation	Improved or increased relaxation was noted in Studies 1, 4, 5, 6, 10, 12, and 13.
	Improved quality of life	Improved quality of life was noted in Studies 7 and 8.
	Improved coping	Improved coping was noted in Studies 2 and 13. Inspired strength was noted in Study 5.
Theme 4	**Category**	**Coding**
Cognitive benefits	Cognitive benefits	Reduced intrusive thoughts and memories, along with improvements in cognitive abilities, including memory, were noted in Studies 4, 5, and 8.
Theme 5	**Categories**	**Coding**
Connectedness	Spirituality	Coming to terms with life and death, spiritual connectedness was noted in Studies 2 and 5.
	Connectedness	Connectedness was noted in Studies 5 and 10.
	Gaining personal insights	Gained insight, improved self-understanding, and the benefits of introspection were noted in Studies 2 and 10.

improvements in concentration and memory supporting cognitive recovery following treatment (Henneghan et al., 2020). Music listening further facilitated coping and enhanced quality of life, as patients described the music as a source of hope, relaxation, strength, and meaning that aided adjustment to illness (Elwafi & Wheeler, 2016; Burns et al., 2018). Finally, music fostered connectedness, enabling emotional expression, social bonding, and spiritual connection, which contributed to reduced feelings of isolation (Lagattolla et al., 2023; Bonde, 2007).

Discussion

The literature identifies various music-listening interventions, including pre-recorded and live music, guided imagery and music (GIM), music and imagery, receptive music therapy, and group-based approaches. These interventions differed in duration, timing, and genre. Short sessions of 12 to 30 minutes improved feasibility and adherence for patients undergoing chemotherapy or intensive procedures. In contrast, longer structured sessions of 30 minutes to two hours, such as guided imagery and music and supportive music and imagery (SMI), supported deeper emotional processing (Henneghan et al., 2020; Gimeno, 2010; Burns et al., 2018).

Musical genres ranged from Western classical and new age to patient-selected music. Allowing participants to choose music promoted comfort, emotional regulation, and engagement, emphasising the value of autonomy and familiarity (Bradt et al., 2015; Kiernan & Vallerand, 2023; Evers & Suhr, 2000). Structured interventions like Bonny Method of Guided Imagery and Music (BMGIM) used pre-selected music to facilitate deep emotional and imagery experiences, while simple repetitive structures such as pentatonic scales encouraged relaxation and pain distraction (Bonny, 2000; Bonde, 2007; Ünal Toprak et al., 2024). Tailoring interventions to patient preferences and therapeutic goals remains essential.

Music listening is consistently identified as a safe, cost-effective, and accessible intervention in cancer care. It promotes emotional, psychological, and physical wellness and may diminish dependence on pharmacological interventions (Lorek et al., 2023; Roberts et al., 2022; Hinz et al., 2020; Beck et al., 2010; Daut & Cleeland, 1982). Integrating music listening into oncology care offers a holistic and sustainable approach (Greenberg et al., 2010).

The review emphasised the role of music listening in symptom management. Reductions in anxiety, stress, and depression were frequently reported, often surpassing those seen with interventions like meditation (Hughes et al., 2024; Mou et al., 2020; Henneghan et al., 2020). Music listening also alleviated nausea and vomiting, supporting its use as a complementary approach with pharmacological treatments (Warr, 2008; Ryan, 2010; Ho et al., 2023).

Cognitive benefits included fewer intrusive thoughts and improved memory. Music evoked personal memories and associations, distracting patients from distress and supporting emotional regulation (Elwafi & Wheeler, 2016; McFerran & Lotter, 2024). Structured interventions like supportive music and imagery promoted reflective processing and further reduced intrusive thoughts compared to simple music listening.

Enhanced emotional states, relaxation, coping, and overall quality of life were consistently reported. Music listening promoted relaxation and calmness, enabling transitions from distress and anxiety. Self-guided interventions empowered patients to practice relaxation independently, supporting coping and emotional adjustment (Studies 1, 4, 6, 10, 12, and 13). Music also encouraged introspection, self-awareness, and insight, facilitating emotional regulation and self-exploration (Studies 2 and 10; Bonde, 2007; Vilč et al., 2023; Schäfer et al., 2013).

Finally, music listening fostered connectedness at intrapersonal, interpersonal, and transpersonal levels. Intrapersonally, participants gained self-awareness and insight, enhancing coping and adaptation (Studies 2 and 10). Interpersonal benefits included strengthened relationships, with music facilitating reconnection between patients and family members (Vrontaras, 2018). Transpersonally, music promoted spiritual connectedness, allowing participants to access emotional and psychological states beyond verbal expression, fostering reassurance and empowerment (Moss, 2019; Joseph, 2014; Bist et al., 2024).

Overall, this review underscores the multifaceted role of music listening in cancer care. Interventions are adaptable in duration, genre, and delivery method and demonstrate consistent benefits across emotional, cognitive, and social domains. Music listening serves as a non-invasive, cost-effective adjunct that supports symptom reduction, coping, quality of life, and connectedness. Future research should explore the integration of patient-

preferred and structured interventions, with larger samples and long-term follow-up, to consolidate understanding of the therapeutic potential. Collectively, music listening represents a promising and holistic complement to conventional cancer care.

Conclusion

This systematic literature review explored the role of music listening in cancer care, analysing 13 studies identified from an initial 4,383 through the Preferred Reporting Items for Systematic reviews and Meta-Analyses (PRISMA) protocol and Specialist Unit for Review Evidence (SURE) appraisal. Thematic analysis revealed five main themes: symptom reduction, coping and enhanced quality of life, cognitive benefits, connectedness, and the value of music listening as a non-pharmacological intervention. Despite promising results, limitations included small sample sizes, lack of control groups, short intervention durations, and narrow populations, affecting generalisability. Future research must incorporate larger and more diverse samples, extended therapies, and randomised controlled trials to evaluate enduring benefits. In the South African context, the findings of the systematic literature review provide a foundation for guiding future research. Overall, music listening shows significant potential as a supportive, holistic approach in cancer care, promoting emotional comfort, connection, and well-being.

Declaration: This journal article outlines my master's thesis titled *Exploring the Use of Music Listening in Cancer Care: A Systematic Literature Review*. The content is a synopsis of my original master's thesis, and the work, analysis, and interpretation are entirely original. AI tools were utilised to assist with writing flow, grammatical correction, and summarising previously written material.

References

Altun, I., & Sonkaya, A. (2018). The most common side effects experienced by patients were receiving the first cycle of chemotherapy. *Iranian Journal of Public Health*, *47*(8), 1218–1219.

Beck, S. L., Towsley, G. L., Berry, P. H., Lindau, K., Field, R. B., & Jensen, S. (2010). Core aspects of satisfaction with pain management: Cancer patients' perspectives. *Journal of Pain and Symptom Management*, *39*(1), 100–115. https://doi.org/10.1016/j.jpainsymman.2009.06.009

Bettany-Saltikov, J. (2010). Learning how to undertake a systematic review: Part 2. *Nursing Standard*, *24*(47), 47-56. https://doi.org/10.7748/ns2010.08.24.51.47.c7943

Bhana, V. M. (2016). *Implementation of Bonny Method of Guided Imagery and Music (BMGIM) to complement care provided in selected cancer interim homes in Gauteng province*. University of Pretoria (doctorate).

Bilgiç, Ş., & Acaroğlu, R. (2017). Effects of listening to music on the comfort of chemotherapy patients. *Applied Nursing Research*, *35*, 28–33.

Bist, D., Shuttleworth, M., Smith, L., Smith, P., & Walker-Gleaves, C. (2024). Music and spirituality: An auto-ethnographic study of how five individuals used music to enrich their soul. *Religions*, *15*(7), 858. https://doi.org/10.3390/rel15070858

Bonde, L. O. (2007). Imagery, metaphor, and perceived outcome in six cancer survivors' Bonny Method of Guided Imagery and Music (BMGIM) therapy. *Nordic Journal of Music Therapy*, *16*(1), 3–19.

Bonny, H. L. (2000). Music psychotherapy: Guided imagery and music. *Voices: A World Forum for Music Therapy*, *10*(3). https://doi.org/10.15845/voices.v10i3.568

Bradt, J., Dileo, C., Magill, L., & Teague, A. (2016). Music interventions for improving psychological and physical outcomes in cancer patients. *Cochrane Database of Systematic Reviews*, 8. https://doi.org/10.1002/14651858.CD006911.pub3

Bradt, J., Potvin, N., Kesslick, A., Shim, M., Radl, D., Schriver, E., Gracely, E. J., & Komarnicky-Kocher, L. T. (2015). The impact of music therapy versus music medicine on psychological outcomes and pain in cancer patients: A mixed methods study. *Supportive Care in Cancer*, *23*(5), 1261–1271. https://doi.org/10.1007/s00520-014-2478-7

Bulfone, T., Quattrin, R., Zanotti, R., Regattin, L., & Brusaferro, S. (2009). Effectiveness of music therapy for anxiety reduction in women with breast cancer in chemotherapy treatment. *European Journal of Oncology Nursing*, *13*(4), 287–291. https://doi.org/10.1097/HNP.0b013e3181aeceee

Burns, D. S., Sledge, R. B., Fuller, L. A., Daggy, J. K., & Monahan, P. O. (2018). Differences between supportive music and imagery and music listening during outpatient chemotherapy. *Journal of Music Therapy*, *55*(2), 198–219. https://doi.org/10.1093/jmt/thy001

Cassileth, B. R., & Deng, G. (2004). Complementary and alternative therapies for cancer. *The Oncologist*, *9*(1), 80–89. https://doi.org/10.1634/theoncologist.9-1-80

Clarke, V., & Braun, V. (2017). Thematic analysis. *Journal of Positive Psychology*, *12*(3), 297–298. https://doi.org/10.1080/17439760.2016.1262613

Da Silva Santa, I. N., Schveitzer, M. C., Dos Santos, M. L. B. M., Ghelman, R., & Odone Filho, V. (2021). Music interventions in pediatric oncology: Systematic review and meta-analysis. *Complementary Therapies in Medicine*, *59*, 102725. https://doi.org/10.1016/j.ctim.2021.102725

Daut, R. L., & Cleeland, C. S. (1982). The prevalence and severity of pain in cancer. *Cancer*, *50*(9), 1913–1918. https://doi.org/10.1002/1097-0142(19821101)50:9<1913::AID-CNCR2820500944>3.0.CO;2-R

Elwafi, D., & Wheeler, B. L. (2016). Listening to music as part of treatment for breast cancer: A qualitative content analysis of patients' listening logs. *Nordic Journal of Music Therapy*, *25*(1), 22–45. https://doi.org/10.1016/j.aip.2015.12.004

Evers, S., & Suhr, B. (2000). Changes of the neurotransmitter serotonin but not of hormones during short time music perception. *European Archives of Psychiatry and Clinical Neuroscience*, *250*(3), 144–147. https://doi.org/10.1007/s004060070031

Giordano, F., Rutigliano, C., Ugolini, C., Iacona, E., Ronconi, L., & Raguseo, C. (2024). Effect of music therapy on chemotherapy anticipatory symptoms in adolescents: A mixed methods study. *Journal of Adolescent Health*, *74*(2), 271–280. https://doi.org/10.1016/j.jpainsymman.2024.04.019

Gimeno, M. M. (2010). The effect of music and imagery to induce relaxation and reduce nausea and emesis in patients with cancer undergoing chemotherapy treatment. *Music and Medicine*, *2*(3), 174–181. https://doi.org/10.1177/1943862110374622

Greenberg, D., Earle, C., Fang, C.-H., Eldar-Lissai, A., & Neumann, P. J. (2010). When is cancer care cost-effective? A systematic overview of cost-utility analyses in oncology. *Journal of the National Cancer Institute*, *102*(2), 82–88. https://doi.org/10.1093/jnci/djp472

Henneghan, A. M., Harrison, T. M., & Kovach, C. R. (2020). A randomized control trial of meditation compared to music listening to improve cognitive function for breast cancer survivors. *Supportive Care in Cancer*, *28*(7), 3273–3281.

Higgins, J. P., & Green, S. (2011). *Cochrane handbook for systematic reviews of interventions*. John Wiley & Sons.

Hinz, A., Weis, J., Brähler, E., Härter, M., Geue, K., & Ernst, J. (2020). Fatigue in cancer patients: Comparison with the general population and prognostic factors. *Supportive Care in Cancer*, *28*(9), 4517–4526. https://doi.org/10.1007/s00520-019-05260-8

Ho, K. Y., Lam, K. K. W., Xia, W., Liu, Q., Chiu, S. Y., Chan, G. C. F., & Li, W. H. C. (2023). Systematic review of the effectiveness of complementary and alternative

medicine on nausea and vomiting in children with cancer. *Cancer Nursing*, *48*(2), 89–98. https://doi.org/10.1097/NCC.0000000000001239

Hong, Q. N., Pluye, P., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., Gagnon, M.-P., Griffiths, F., Nicolau, B., O'Cathain, A., Rousseau, M.-C., & Vedel, I. (2019). Improving the content validity of the mixed methods appraisal tool: A modified e-Delphi study. *Journal of Clinical Epidemiology*, *111*, 49–59. https://doi.org/10.1016/j.jclinepi.2019.03.008

Hughes, L., Taylor, R. M., Beckett, A. E., Lindner, O. C., Martin, A., McCulloch, J., Morgan, S., Soanes, L., Uddin, R., Stark, D. P., & Bensadoun, R. J. (2024). The emotional impact of a cancer diagnosis: A qualitative study of adolescent and young adult experience. *Cancers*, *16*(7). https://doi.org/10.3390/cancers16071332

Hui, D. (2014). Review of integrative oncology: An evidence-based clinical guide. *CA: A Cancer Journal for Clinicians*, *64*(6), 451–452.

Joseph, D. (2014). Spirituality, music, and well-being: Sharing insights from an Australian setting. *The International Journal of Health, Wellness, and Society*, *4*(2), 1–14. https://doi.org/10.18848/2156-8960/CGP/v04i02/41098

Kiernan, E. A., & Vallerand, A. H. (2023). Mitigation of chemotherapy-induced nausea using adjunct music listening: A pilot study. *Clinical Journal of Oncology Nursing*, *27*(1), 65–72.

Lagattolla, F., Ranieri, R., & Salerno, G. (2023). Receptive music therapy versus group music therapy with breast cancer patients hospitalised for surgery. *The Arts in Psychotherapy*, *82*, 101949. https://doi.org/10.1007/s00520-023-07624-7

Li, Y., Dong, M., & Wang, R. (2013). Psychological distress in cancer patients. *Asian Pacific Journal of Cancer Prevention*, *14*(3), 1563–1567.

Lima, T. U., Moura, E. C. R., Oliveira, C. M. B., Leal, R. J. D. C., Nogueira Neto, J., Pereira, E. C., Nascimento, R. V. B., Oliveira, E. J. S. G., & Leal, P. D. C. (2020). Impact of a music intervention on quality of life in breast cancer patients undergoing chemotherapy: A randomized clinical trial. *Integrative cancer therapies, 19*, 1534735420938430. https://doi.org/10.1177/1534735420938430

Loomba, R. S., Arora, R., Shah, P. H., Chandrasekar, S., & Molnar, J. (2018). Effect of music on anxiety, depression, and pain perception in patients undergoing cardiac catheterization: A randomized controlled trial. *Journal of Cardiovascular Medicine*, *19*(12), 723–728. https://doi.org/10.2459/JCM.0000000000000713

Lorek, M., Bąk, D., Kwiecień-Jaguś, K., & Mędrzycka-Dąbrowska, W. (2023). The effect of music as a non-pharmacological intervention on the physiological, psychological, and social response of patients in an intensive care unit. *Healthcare*, *11*(12), Article 1687. https://doi.org/10.3390/healthcare11121687

McFerran, K., & Grocke, D. E. (2022). *Receptive music therapy: Techniques, clinical applications and new perspectives* (2nd ed.). Jessica Kingsley Publishers.

McFerran, S. K., & Lotter, C. B. (2024). *The psychology of music listening for health and well-being professionals*. Palgrave Macmillan.

Moss, H. (2019). Music therapy, spirituality and transcendence. *Nordic Journal of Music Therapy*, *28*(3), 212–223. https://doi.org/10.1080/08098131.2018.1533573

Mou, Q., Wang, X., Xu, H., Liu, X., & Li, J. (2020). Effects of passive music therapy on anxiety and vital signs in lung cancer patients undergoing peripherally inserted central catheter placement procedure. *Journal of Vascular Access*, *21*(6), 875–882. https://doi.org/10.1177/1129729820908088

Nair, S., Simon, L., & Kroenke, K. (2016). Music therapy for chronic pain management. *Current Pain and Headache Reports*, *20*(7), 46. https://doi.org/10.1007/s11916-016-0559-3

Nightingale, A. (2009). A guide to systematic literature reviews. *Surgery (Oxford)*, *27*(9), 381–384. https://doi.org/10.1016/j.mpsur.2009.07.005

Rani, L. I., & Bayu, S. (2021). Perception of cancer patients on chemotherapy side effects. *Jurnal Riset Kesehatan, 10*(1), 71–76. https://doi.org/10.31983/jrk.v10i1.6729.

Roberts, J., Horn, S., Aquino, E., & Amer, K. (2022). Music: A holistic approach to symptom management for patients undergoing cancer treatment. *Journal of Nursing Education and Practice*, *12*(6), 1. https://doi.org/10.5430/jnep.v12n6p1

Ryan, J. L. (2010). Treatment of chemotherapy-induced nausea in cancer patients. *European Oncology*, *6*(2), 14. https://doi.org/10.17925/eoh.2010.06.02.14

Sano, M., & Fushimi, K. (2017). Association of palliative care consultation with reducing inpatient chemotherapy use in elderly patients with cancer in Japan: Analysis using a nationwide administrative database. *American Journal of Hospice and Palliative Medicine*, *34*(7), 685–691. https://doi.org/10.1177/1049909116650238.

Schäfer, T., Sedlmeier, P., Städtler, C., & Huron, D. (2013). The psychological functions of music listening. *Frontiers in Psychology*, *4*, 511. https://doi.org/10.3389/fpsyg.2013.00511

Singh, P., & Chaturvedi, A. (2015). Complementary and alternative medicine in cancer pain management: A systematic review. *Indian Journal of Palliative Care*, *21*(1), 105–115. https://doi.org/10.4103/0973-1075.150202

Souza, M. T. D., Silva, M. D. D., & Carvalho, R. D. (2010). Integrative review: What is it? How to do it? *Einstein (São Paulo), 8*, 102–106. https://doi.org/10.1590/s1679-45082010rw1134

Spilioti, E. D., Galanis, P. A., & Kalokairinou, A. G. (2017). The effects of music on cancer patients submitted to chemotherapy treatment. *International Journal of Caring Sciences*, *10*(3), 1465–1477.

Stanczyk, M. M. (2011). Music therapy in supportive cancer care. *Reports of Practical Oncology & Radiotherapy*, *16*(5), 170–172. https://doi.org/10.1016/j.rpor.2011.04.005

Ünal Toprak, F., Uysal, N., Göksel, F., & Soylu, Y. (2024). The effect of music on anxiety, pain levels, and physiological parameters in women undergoing brachytherapy: A randomized controlled trial. *Seminars in Oncology Nursing*, *40*(1). https://doi.org/10.1016/j.soncn.2023.151575

Vardy, J. L., Liew, A., Warby, A., Elder, A., Keshet, I., Devine, R., Ouliaris, C., Renton, C., Tattersall, M. H. N., & Dhillon, H. M. (2022). On the receiving end: Have patient perceptions of the side effects of cancer chemotherapy changed since the twentieth century? *Supportive Care in Cancer*, *30*(4), 3503–3512. https://doi.org/10.1007/s00520-022-06804-1

Vilč, B., Martinec, R., & Miholić, D. (2023). The effects of music listening on pain perception and coping with breast cancer. *Glasbenopedagoški Zbornik Akademije Za Glasbo / The Journal of Music Education of the Academy of Music in Ljubljana*, *19*(39), 127–142. https://doi.org/10.26493/2712-3987.19(39)127-142

Vrontaras, N. (2018). Cancer patients' views on the family changes and the family social support. *Journal of European Psychology Students*, *9*(1), 16. https://doi.org/10.5334/jeps.403

Warr, D. (2008). Chemotherapy- and cancer-related nausea and vomiting. *Current Oncology*, *15*(1), S4. https://doi.org/10.3747/co.2008.171

World Health Organization. (2021). *Cancer*. WHO. https://www.who.int/news-room/fact-sheets/detail/cancer