



# **Guided imagery, music and well-being: A systematic literature review**

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Mini-dissertation accepted in partial fulfilment of the requirements for the degree  
*Masters of Arts in Positive Psychology*  
at the North-West University

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Graduation ceremony April 2019

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## DECLARATION

I, Petra Adriana Jerling, hereby declare that the mini-dissertation titled “Guided imagery, music and well-being: A systematic literature review” is my own work. All the sources that I have used or quoted have been indicated and acknowledged both in the reference list(s) and by means of complete in-text references.

I further declare that this work will not be submitted to any other academic institutions for qualification purposes.

A handwritten signature in black ink, appearing to read 'Petra Jerling', with a large, sweeping underline stroke.

PETRA ADRIANA JERLING

NOVEMBER 2018

## Preface

Dear Reader

Kindly take note of the following:

- The referencing and editorial style of this mini-dissertation is done according to the *Publication Manual* (6<sup>th</sup> edition) of the American Psychological Association (APA), following the prescription for the Masters in Applied Positive Psychology of the North-West University, Vaal Triangle Campus.
- The article format was used for this mini-dissertation. This means that the document consists of three chapters, with chapter 1 being the introductory chapter. The second chapter, in article format, contains the major findings of the study, and the final chapter outlines the conclusions, limitations and recommendations relating to the study.
- The article: Exploring Guided Imagery and Music (GIM) as a well-being intervention: A Systematic Literature Review (Chapter 2) has been submitted to the *Nordic Journal of Music Therapy*.

## Acknowledgements

**To God, my heavenly Father** – thank you for granting me the opportunity and ability to keep studying and an always positive outlook, and perseverance. I was, and still am, aware of Your grace, daily.

**To my supervisor, Dr Marita Heyns** – thank you for immeasurable patience, deep insight, invaluable help, ALWAYS timeous responses, heartfelt kindness and a genuinely caring heart. A BETTER SUPERVISOR WILL BE HARD TO FIND!!

**To my dearest confidant, Thea** – thank you for your enduring understanding, the countless cups of tea and my special chair.

**To my children, Willemien and Stian** – thank you for always believing in me, your words of affirmation, and for being my halfway house on my way to university; and

**Jan** – thank you for always picking up when I Skype you for assistance in whatever regard with the same tone of voice, saying: “Hello Mom”.

**To Dawid and Sonja** – thank you for being my home away from home and blessing me with gifts of nourishment, physical and emotional.

**To Danie and Sonet** – thank you for always inspiring me, no matter how busy your own lives are!

**To Martie Esterhuizen** – thank you for your patient assistance in the library and on email.

**To Prof Chrizanne van Eeden and Prof Ian Rothman** – thank you for affording me the opportunity to grow as an individual through MAPP. You inspire people with your vision!

**To Marinda Malan and Lynn Booysen** – thank you for answering all my minor and major questions, and for giving me hugs and advice when I needed it the most!

**To Gavin Sinclair** – thank you for meticulously proofreading and editing the manuscript in such a sensitive and professional way.

**To my fellow MAPPers** - I am grateful to have met you and journeyed with you.

## Summary

**Title:** Guided imagery, music and well-being: A systematic literature review

**Key Terms:** Guided Imagery and Music (GIM); well-being; systematic literature review

**Background:** Guided Imagery and Music (GIM) is a type of psychodynamic therapy using music to explore the psyche of the client for growth and transformation. It has been used in multiple contexts. It could thus be seen as an intervention within the Positive Psychology framework, which could contribute to the standard package of interventions in contexts where it has not been explored before.

**Objectives:** The purpose of this study was to review the literature to ascertain whether GIM has an influence on the well-being of the client.

**Method:** Peer-reviewed and unpublished dissertations were reviewed with the purpose of finding evidence that well-being can be influenced positively through GIM interventions. Studies were assessed for risk of bias.

**Results:** 327 studies between 2000 and 2017 were retrieved from various data-bases. Duplications were removed, and eleven titles met the criteria for this review. These eleven studies included between four and ten GIM sessions representing 249 adult participants across a spectrum of settings. Well-being, quality of life and sense of coherence were measured in many of these studies, with mixed results found, ranging from medium to large effect sizes. The POMS (Profile of Mood States) and PANAS (Positive Affect Negative Affect Schedule) are some of the questionnaires that were used as well. Three research studies focused on addiction treatment. Most interventions were in group settings.

**Conclusion:** Although further research is needed, evidence is promising that GIM interventions have a positive effect on the well-being of clients who seek help for various conditions. This is a clear indication that there is a relationship between GIM and Positive Psychology. The outcomes of these studies indicate that further research and application in various contexts, particularly in South Africa, is underexplored and very possible.

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## **CHAPTER 1**

### **Guided imagery, music and well-being: A systematic literature review**

#### **1.1 Introduction**

Positive Psychology in combination with the use of music therapy, particularly the modality of Guided Imagery and Music (GIM), have not yet been researched or implemented in South Africa thus far (Nexus Database System, 2017). I believe that a thorough systematic literature review which can indicate which positive outcomes, if any, have been found could contribute to informing and motivating future implementation of this kind of intervention in different health settings.

#### **1.2 Problem statement**

In the 1970s, psychedelic drugs and music were used together at the Maryland Psychiatric Research Centre and the research and experience demonstrated that this combination could open minds to new depths and heights, but the abuse of these drugs on the street and the side effects when used without supervision and/or limits led to the criminalisation of these substances (Bonny & Savary, 1990). Guided Imagery and Music (GIM), also known as the Bonny Method of Guided Imagery and Music, or BMGIM, was developed at that time and was originally implemented in the Maryland Psychiatric Research Centre where it, the music intervention, replaced the use of substances for the recovery of psychiatric patients, including alcoholics, after the use of LSD had been forbidden (Bonny, 2001). The reason for this development was as a result of a personal experience of flow as described by Csikszentmihalyi (1990) when Bonny played her violin. In this experience of flow, she realised that, with a more focused attention on music, the same could result for clients with the music alone (Bonny, 2001).

GIM is the use of particular pre-selected music which allows the client to image, or visualise, whilst listening in an altered state of consciousness after proper relaxation and

induction. The visualisation is guided by a trained music therapist (called a guide) and the music is selected according to an intention which is chosen by the client. After the music, the visual images are explored and linked to reality in terms of the client's own needs and the chosen intention (Bonny, 2001). Originally, BMGIM in its strictest form was always structured with a pre-talk, a full programme of pre-selected music (between 30 and 40 minutes), a drawing and a discussion and it was used for individual psychotherapy. However, many adaptations are being used with the freedom to use shorter music programmes, sometimes single pieces and even the repetition of the same piece of music, discussion or drawing (not both) for groups as well as individuals. These methods, derived from, but not exactly the same as the Bonny method (BMGIM) is generally called GIM (Bruscia, 2015).

Bruscia (2014) claims that music therapy, because it is a systematic therapy, motivates the client to stay engaged, giving the clients time to build their own resources. Cropanzano and Wright (2001) proposed that when someone is resourceful in terms of strengths, the performance of that individual will be better, and the person will be happier. Given the link to positive resource utilisation, it can be argued that there could be a good marriage between this modality of music therapy (GIM) and Positive Psychology.

Positive Psychology focuses on the well-being and thriving of people through developing personal strengths. The original pillars that the science of Positive Psychology was built on include positive emotions, engagement (flow), healthy relationships (authentic connections), and later on meaning or purposeful existence and achievement or accomplishment were added to form the PERMA model (Seligman, 2010). Positive Psychology includes many more constructs including post-traumatic growth, mindfulness, and happiness or well-being which includes feeling good and functioning well. In addition, Psychological Capital (PsyCap) includes four Positive Psychology constructs, namely hope, efficacy, resilience and optimism, and the theory has been developed to understand how individuals overcome

setbacks and obstacles. PsyCap can be defined as the individual's state of psychological developmental which is characterised by (1) having confidence to succeed when taking on something challenging (hope); (2) displaying positive qualities about succeeding in it (efficacy); (3) not giving up and even changing direction when it becomes difficult (optimism); and (4) the ability to bounce back when affected by problems in order to be successful (resilience) (Youssef & Luthans, 2010). These four constructs (although not exclusively) are all valuable in terms of recovering from any adversity, whether it may be physical or an emotional level.

A possible link between GIM and positive outcomes such as well-being as conceptualised within a Positive Psychology framework, has not been explicitly researched previously. Although systematic literature reviews in music therapy have been done, only one systematic review of the research literature pertaining to the BMGIM modality exists (McKinney & Honig, 2017). In this particular review, the focus was on positive outcomes across different psychological and physiological diagnoses. However, no specific positive outcomes are mentioned. Furthermore, only studies that consisted of a series of interventions were included and case studies were excluded.

A gap in research about the possible positive outcomes of GIM interventions exists, particularly in the South African context, since the majority of the music used in GIM is from the Western European (classical) genres which is different to the indigenous music from Africa. The research question, therefore, was: What, if any, positive outcomes have been found through GIM interventions which can contribute to the well-being of the individual?

It was my opinion that this study could be valuable, because if positive outcomes are found in the literature, and they can be identified, new interventions can be implemented in contexts where positive outcomes and well-being is important, e.g. drug and alcohol rehabilitation programmes.

### **1.3 Research Objective**

The objective for this research study was to do a systematic review of existing peer-reviewed literature as well as grey literature e.g. unpublished Masters dissertations and Doctoral theses in Guided Imagery and Music to see which positive outcomes in terms of the well-being of clients have been found in these interventions, if any. According to Grant and Booth (2009), such a review often results in finding gaps and opening doors for further research. Thus, if no or limited positive outcomes were found, more research opportunities would be created in order to find reasons for the lack of such outcomes.

### **1.4 Research Methodology**

The research relating to the abovementioned aim and objectives consisted of only one phase, namely a thorough systematic literature review. A systematic literature review is a rigorous methodology which can stand completely on its own and can be replicated (Creswell, 2014).

#### **1.4.1 Systematic Literature Review**

The systematic literature review provided good insight into the problem statement and the various constructs mentioned in the research question. Through the systematic literature review, the interrelatedness between constructs such as Guided Imagery and Music interventions, Positive Psychology constructs, e.g. hope, efficacy, resilience and optimism, as well as well-being became clear and added to the focus of the review.

The constructs included:

- Guided Imagery and Music interventions;
- Positive Psychology constructs, e.g. hope, efficacy, resilience and optimism
- Well-being

### **1.4.2 Research design**

According to Durrheim (2006), a research design is a framework which needs to be a logical and valid link between the research question(s) and the actual execution of the research. Kumar (2014) adds that the researcher's choice of design informs the reader about the rationale and justifies the validity and the reliability of the research.

A systematic literature review seeks to search for evidenced-based research in order to answer a specific research question systematically and then evaluate and synthesise the findings. The summarising of what is known then enables further recommendations in terms of practice and research (Grant & Booth, 2009). The importance of systematic reviews in health care is becoming increasingly valuable for clinicians who want to keep up to date with developments in their fields of practice and research (Moher, Liberati, Tetzlaff, Altman & The PRISMA group, 2009).

Because studies sometimes have conflicting results, and findings of such a review can contribute to decisions being made for future practice and research, the methodology used for such a systematic review must be well structured and adhere to certain steps (CRD, 2009).

The aim of this study was to find, through a systematic literature review, whether positive outcomes that contribute to the psychological well-being of clients receiving GIM interventions have been found, and to identify what they are. To ensure that this study was systematic and thorough, the researcher aimed to follow the steps according to Cook, Mulrow and Haynes (1997), namely answering the specific research question, utilising comprehensive sources with an explicit search approach selecting criteria which were applied uniformly, and then evaluating and synthesising the retrieved literature critically and rigorously. The steps can also be described as follows: 1) Define a question; 2) Do a literature search; 3) Evaluate the relevant literature; 4) Combine/summarise the results; and 5) Contextualise/ interpret the

findings (Khan, Kunz, Kleijnen & Antes, 2003; Shenkin, 2013). The 17-item checklist under five broader headings was specifically designed by Moher et al. (2015) to facilitate the preparation and reporting of a robust protocol for systematic review purposes.

#### **1.4.3 Procedure (Review Protocol)**

The review was carried out following the above-mentioned steps. In Step 1 the research question was formulated as follows:

Have any positive outcomes been found through GIM interventions which can contribute to the well-being of the individual?

The possibility that other Positive Psychology constructs would be present in studies was considered and those were accommodated in the findings. Hanson-Abromeit and Moore (2014) recommend such flexibility for broader inclusion. The PICO+ model, as described by Kloda and Bartlett (2013) was employed to guide this process. This model asks the following questions guiding the research question: first, Who is the Patient?; then, What Intervention is applied?; thirdly, Is there a Comparison (with other interventions)?, and lastly, What is the Outcome?

In Step 2 inclusion and exclusion criteria needed to be considered in order to start searching for appropriate literature. Relevant peer-reviewed academic articles as well as dissertations were retrieved using different databases with particular search terms. Both peer-reviewed and grey literature were included in the search to ensure the inclusion of all relevant literature and to limit bias (McKinney & Honig, 2017). Academic books, national and international scientific journals, the internet and other research data sources, such as presentations were considered.

Sources was found by utilising the following tools:

- EbscoHost: International journals on Academic Search Premier;
- Emerald: International journals;
- Internet: Google Scholar and online academic journals;
- JSTOR: International journals and books;
- Nexus: Database of current and completed research in South Africa;
- Optentia: Academic presentations and publications;
- Scopus: International journals; and
- Taylor & Francis: International journals.

Duplications were removed, and full texts were filtered for relevance in accordance with the PRISMA model (Moher, et. al., 2009).

In Step 3 the quality of the retrieved literature was assessed through different forms of quality reviews. A different form of quality review was used for each kind of article according to the methodology of the specific article or publication (Coetzer, Bussin & Geldenhuys, 2017). For publications utilising qualitative methodology, the quality review form which was developed by McKinney and Honig (2017) from three existing different forms was utilised as their systematic literature review also resolved around Guided Imagery and Music (Table 1). For quantitative studies, the 11 screening questions as prescribed by the Institute for Public Health Sciences (2002) was utilised (Table 2). For mixed method studies, a combination of both the above helped to assess quality.

1. Are the aims and objectives clearly stated?
2. Is there a clear description of the context?
3. Is there a clear description of the sample, how it was recruited and justification for selection?
4. Is there a clear description of the methods used to collect and analyse data?
5. Does the sensitivity of the method match the research question?
6. Were the data collection and recordkeeping systematic?
7. Is the study sufficiently oriented around participants and phenomena in their original contexts?
8. Was the analysis systematic?
9. Were attempts made to establish the validity of the data analysis?
10. Is sufficient original data included to mediate between evidence and interpretation?

Questions 1-4, 9 & 10: Harden (2004)

Question 5, 6 & 8: Blaxter (2003)

Question 7: Abrams (2005)

**Table 1: Quality Review Form for literature using qualitative methodology**

**(McKinney & Honig, 2017)**

1. Did the study address a clearly focused issue?
2. Did the authors use an appropriate method to answer their question?
3. Were the subjects recruited in an acceptable way?
4. Were the measures accurately measured to reduce bias?
5. Were the data collected in a way that addressed the research issue?
6. Did the study have enough participants to minimize the play of chance?
7. How are the results presented and what is the main result?
8. Was the data analysis sufficiently rigorous?
9. Is there a clear statement of findings?
10. Can the results be applied to the local population?
11. How valuable is the research?

**Table 2: Quality Review Form for literature using quantitative methodology (Institute for Public Health Sciences, 2002)**

For literature reviews the quality review form that was utilised, is the summary of Pyrczak's (1999) form as adapted by Coetzer, et. al. (2017) (Table 3).

|   |
|---|
| <ol style="list-style-type: none"><li>1. Literature review was organised</li><li>2. Literature review was extensive on a topic</li><li>3. Literature review was critical</li><li>4. Current research was cited</li><li>5. Researcher distinguished between research, theory and opinion</li><li>6. Quality literature sources were used</li></ol> |
|---|

**Table 3: Quality Review Form for literature reviews (Pyrczak's (1999) form as adapted by Coetzer, et. al., 2017)**

#### **1.4.3.1 Search terms**

Both qualitative and quantitative data (peer-reviewed articles) as well as grey literature such as dissertations and theses, and earlier literature reviews on the subject of GIM were considered to ensure that the review was comprehensive. In order to find literature that pertained directly to the research question the following sets of search terms were used: (1) GIM, or BMGIM, or Guided Imagery and Music, or Imagery and Music, or Imagery in Music, or Music Imagery and well-being; (2) GIM, or BMGIM, or Guided Imagery and Music, or Imagery and Music, or Imagery in Music and other terms that are closely related to well-being, such as hope/efficacy/resilience/confidence, etc.

#### **1.4.3.2 Inclusion criteria**

The inclusion criteria for this study was the following: (a) Seminal works that contain chapters written by GIM practitioners discussing their work from an interventional point of view (seminal works include the work by authors who are regarded as leaders in the field of Music Therapy); (b) Peer-reviewed articles with a focus on GIM that were published between 2000 and 2017, (c) National and international studies, including dissertations and theses from

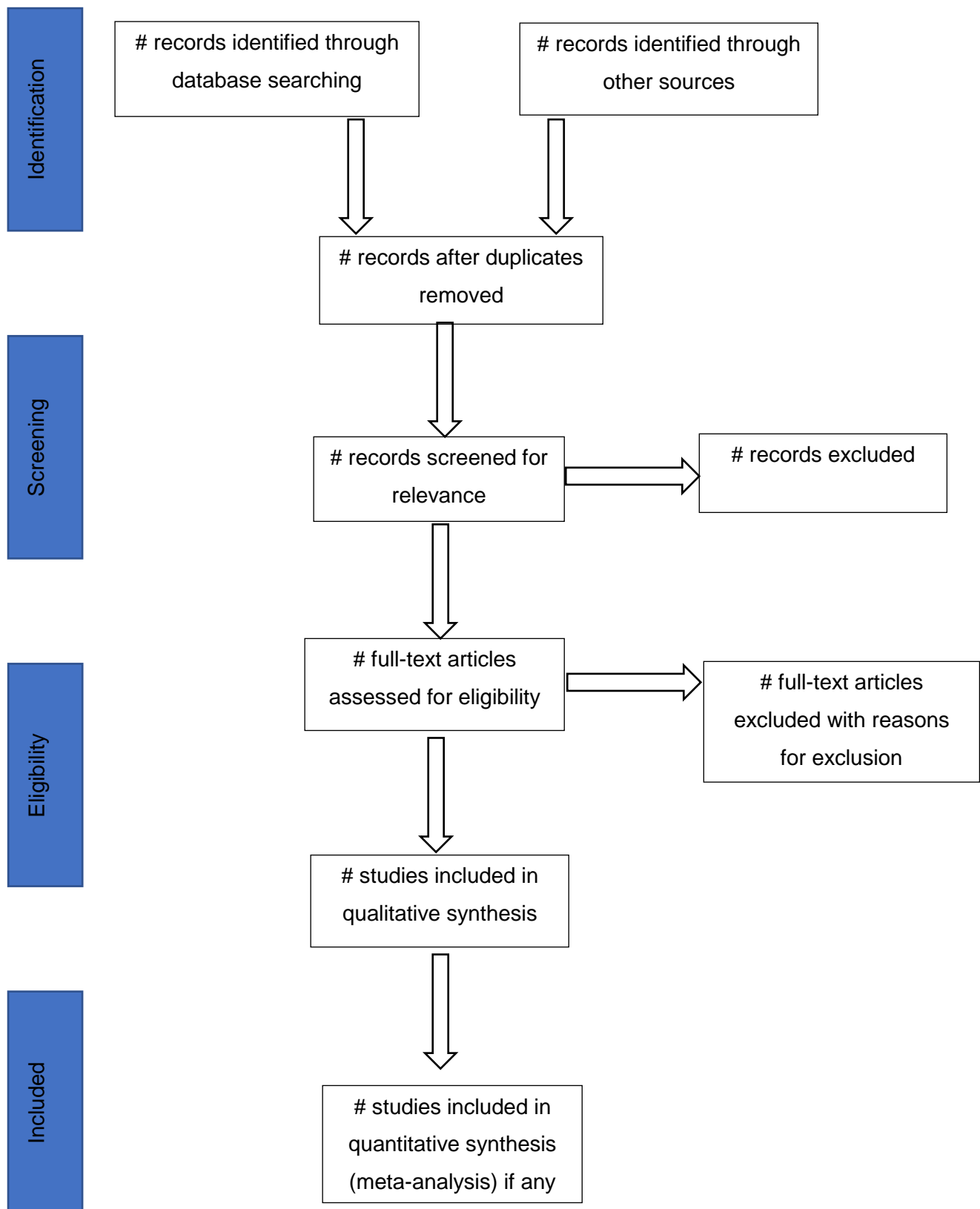
2000 to 2017 with a focus on GIM; and (d) Articles written in English, Afrikaans, Dutch or German (i.e. publication language).

#### **1.4.3.3 Exclusion criteria**

Articles not written in one of the above-mentioned languages or that are not peer-reviewed, were excluded from the review as well as articles which did not focus on the influence of GIM on the well-being of clients. The PRISMA flow chart (Figure 1) was used to include relevant and to exclude irrelevant literature.

In Step 4 the information was summarised according to date of publication, author, publication, study design, and themes that correlated with the constructs that were identified in the research question.

In Step 5, which was the final step, the information was meaningfully interpreted using the information from Step 4. A practical contextualisation, through creating tables which identified the different contexts and constructs, as well as how and where they overlapped, was formed in order to answer the research question and further research possibilities and implementation of this kind of intervention was discussed.



**Figure 1: Prisma Flow Chart (Moher, et. al., 2009)**

## **1.5 Ethical Considerations**

Ethics and ethical practice is integral in any health practice or research as it concerns the well-being of people. The American Psychological Association (APA) (2017) has identified the following as important principles for ethical practice 1) respect for people's rights; 2) beneficence and non-maleficence; 3) justice; 4) fidelity and responsibility; and 5) integrity. These coincide with the ethical principles that is prescribed the South African Health Department (2015).

Vella-Brodrick (2014) suggests empirically supported treatments (EST) in the field of psychology is non-negotiable. For this reason, research studies should be of a very high standard, and if these studies become more accessible for other practitioners, including those in other related fields, competency will be realised, especially by practitioners in other psychology and related fields.

### **1.5.1 Professional Code of Ethics**

Professional ethics is concerned with moral issues, as very focused knowledge is obtained and how this knowledge is being put into practice, needs to be carefully administered because people are involved (Levin & Buckett, 2011). Since Positive Psychology already supports the scientist-practitioner model, this is an area where, ethically, Positive Psychology practitioner, teacher and student set the example (Lowman, 2012). According to the characteristics of qualitative research as stated by Ansdell and Pavlicevic (2001), the researcher becomes part of the process and the objective would then be for the researcher to demonstrate transparency and awareness to attain unbiased results (Struwig & Stead, 2001; Iphofen, 2011).

I undertook to stay unbiased and objective while critically reviewing literature, by adhering to the protocol as described in the methodology and highlighted by Moher et al. (2015), bearing in mind the importance of the findings for further research and practice purposes. I also read as widely as possible so as not to limit the retrieved information to

certain journals or authors or points of departure. Proper reviewing is time consuming and it was therefore my aim to stay within the boundaries of the chosen scope of reading.

### **1.5.2 Internal Review Boards**

Research approval was obtained from the Optentia Research committee. The study was also approved by the Basic and Social Sciences Research Ethics Committee (BaSSREC) of the Vaal Triangle Campus of the North-West University (approval number NWU-HS-2018-0029). The systematic review was registered with PROSPERO (CRD42018096423) as is recommended by Moher et al. (2015) before research started. In this way I was held accountable at all times as the review was open to be scrutinised as the process unfolded. All authors which were used and discussed in the literature review were fully acknowledged and all references were made available to the reader in order to assure the possibility of replication of this study at a later stage should that be necessary.

### **1.5.3 Protection from Harm and Right to Privacy**

Since no human participation was involved in the current study, ethical considerations were limited to the way in which information was treated. The study was conducted by reviewing the existing published literature within the public domain. The results of the study were submitted for publication in a scientific journal which is peer-reviewed. It will also be presented as part of an academic dissertation.

### **1.6 Limitations, Anticipated Constraints and Risks**

Time, date of publication, language of publication and non-published works all held certain limitations and constraints. The risk existed that important findings would be left out for any of the above reasons.

I tried to summarise relevant material according to different relevant headings. The publication date of material was carefully considered with an emphasis on later published

work. I realise that not all suitable material might have been published, and therefore I endeavoured to broaden the scope as wide as possible within my personal limitations.

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## **CHAPTER 2: Research Article**

### **Exploring Guided Imagery and Music as a well-being intervention: A Systematic Literature Review**

#### **ABSTRACT**

Guided Imagery and Music (GIM) is a modality of music therapy which works on a psychodynamic level, using music to explore the psyche of the client for growth and transformation. It can arguably be considered as an intervention within the Positive Psychology framework that may have beneficial effects on client well-being.

This study conducts a systematic literature review to seek evidence that Guided Imagery and Music has an influence on the well-being of the client. If such evidence is found in the literature, and the influence could be tracked as well, this particular kind of intervention could be used in more and new settings. A specific aim was to explore a possible relationship between GIM and Positive Psychology.

A five-step protocol for systematic reviews guided the process. Peer-reviewed and unpublished dissertations were reviewed. Studies were assessed for risk of bias and outcomes of different positive variables were identified and discussed.

After applying the PICO model to initiate the literature search, three hundred and twenty-seven peer-reviewed and unpublished dissertations were initially identified. The eleven studies that finally met the inclusion criteria and assessment for risk of bias enabled a discussion of a range of well-being related variables in both clinical and nonclinical settings.

Although further research is needed, evidence is promising that GIM interventions have a positive effect on the well-being of clients who seek help for various conditions. The outcomes of the studies on various population groups were positive and this is an indication that implementation of GIM as an intervention in new settings, is a possibility.

***Keywords:***

Systematic literature review; Guided Imagery and Music (GIM); Well-being

## **Introduction**

**Guided Imagery and Music (GIM)** is a type of psychodynamic therapy using music to explore the psyche of the client for growth and transformation. It could thus be considered as an intervention within the Positive Psychology framework. Although it is used in multiple contexts, it was first implemented in the Maryland Psychiatric Research Centre where it replaced the use of LSD in research (Bonny, 2001). This gives rise to the question whether GIM can also be associated with positive outcomes for treatment settings where it has seldom, if ever, been implemented.

**Positive Psychology** focuses on the well-being and thriving of people through developing personal strengths (Lopez & Gallagher, 2009). According to Cropanzano and Wright (2001) an individual who is resourceful in terms of strengths, will perform better and will be happier.

Scientifically tested approaches such as GIM and Positive Psychology are not yet being used in all possible settings (Summer, 1988; Vella-Brodrick, 2014). The researchers believe that such new, more modern approaches could provide new avenues for treatment and possibly offer better outcomes in a variety of settings, particularly in the South African context. One of the main motivations for reviewing the literature was to investigate whether this opinion can be substantiated.

## **Background**

**GIM**, according to the Bonny method, uses specific pre-selected classical music, mostly from the Western tradition, which allows the client to image, or visualise, whilst listening. The imagery can include symbols, sensations, memories and/or feelings that are helpful for working through difficulties in a healing and transformative way (Bonny, 2001). A typical GIM session consists of an introductory talk where an intention is established by

the client. This is followed by an induction where the client is properly relaxed and guided into a focused, altered state of consciousness before the music starts.

The visualisations or experiences of the client while the music is playing, are guided by an intensively trained GIM therapist (Association for Music and Imagery, n.d.) whose role it is to gently and therapeutically accompany the client on the journey in the music. After the music, the visual images or other experiences that the client has described, are explored in either the drawing of a mandala, or a discussion, or both. The symbolic journey is then linked to reality in terms of the client's own needs and circumstances, still considering the original intention (Bonny, 2001). GIM as psychodynamic therapy provides opportunities for growth and exploration which certainly includes the promotion of well-being (Ventre, 2002). This suggests a possible compatibility or association between Positive Psychology and the GIM music therapy intervention.

**Well-being** includes the two very important aspects of feeling good (hedonic well-being) and functioning well (eudaimonic well-being). While hedonic well-being can be described as happiness that encompasses high levels of positive affect and satisfaction with life, including Positive Psychology constructs such as joy, hope, pride, serenity and gratitude, eudaimonic well-being centres around creating a purposeful and meaningful life where constructs such as engagement, self-actualisation and authenticity are included (Hefferon & Boniwell, 2011). Well-being as defined by Ryff and Singer (1998) is primarily about psychological aspects such as engaging in life purposefully and using physical, emotional, social and intellectual potential. Their six-component model (2006) include the following: autonomy, personal growth, acceptance of self and one's life, the ability to manage the environment one lives in, purpose in life, and positive relationships. Another construct that is directly related to well-being is Psychological Capital (PsyCap), which was originally developed to promote understanding of how individuals overcome difficulties and setbacks

(Youssef & Luthans, 2010). PsyCap encompasses the sub-dimensions of hope, efficacy, resilience and optimism (abbreviated to the acronym HERO) that can all be linked to strengths needed for recovery from any adverse circumstance (Youssef & Luthans, 2010). In view of what has been said thus far, it would be valuable to see whether a systematic review of existing literature could trace an association between GIM and well-being either in broad terms or more specifically through the associated constructs as mentioned.

**A Systematic Literature Review** implies that all existing literature relevant to the research question(s) is collected, evaluated and synthesised in order to learn from what has been found in the past and utilising it in the future. It is rigorous enough to be able to stand on its own as a research methodology (Creswell, 2014). A systematic literature review is seen as reliable and transparent, as the methodology includes (a) a comprehensive search of primary studies, (b) inclusion and exclusion criteria are required and (c) quality of studies are assessed. The contexts should be homogenous, but all methodologies should be considered. Literature should be able to point out effectiveness and meaning or impact and there should be either theory development or analysis, while gaps in the literature should be highlighted (Matney, 2018). Systematic literature reviews are becoming considerably more important and valuable, particularly in health care, as they help to keep clinicians up to date with what is pertinent in the research field, which could be applied in practice (Moher, Liberati, Tetzlaff, Altman & The PRISMA group, 2009). These were all important reasons for choosing this methodology. The aim of this systematic literature review was to find answers to the following research question: What, if any positive outcomes been found through GIM interventions which can contribute to the well-being of the individual?

## **Method**

The protocol for systematic reviews that was followed included the five steps as described by Khan, Kunz, Kleijnen and Antes (2003) and Shenkin (2017). Step 1 is to define

the research question(s), followed by a search of the literature (step 2) and evaluation of the literature that has been retrieved (step 3). The last steps would be to combine the results (step 4) in order to contextualise and interpret the findings (step 5).

The PICO model (Kloda & Bartlett, 2013) was used to define and refine the research question as well as the search of literature as demonstrated below:

P (patients): all clinical and nonclinical settings

I (intervention): all adaptations of GIM with groups as well as individuals

C (comparison): effectiveness of GIM interventions in comparison to the normal or standard intervention, and

O (outcome): well-being of patients/clients

Both qualitative and quantitative data (peer-reviewed articles) as well as Masters dissertations and Doctoral theses and earlier literature reviews on the subject of GIM were considered to ensure that the review was comprehensive. All types of studies, including case studies, were considered. The following two sets of search terms were used: (1) GIM, or BMGIM, or Guided Imagery and Music, or Imagery and Music, or Imagery in Music, or Music Imagery and well-being; (2) GIM, or BMGIM, or Guided Imagery and Music, or Imagery and Music, or Imagery in Music, or Music Imagery and terms that are closely related to well-being, including hope/self-efficacy/resilience/self-awareness/confidence.

The inclusion criteria for this study included: (a) Seminal works that contain chapters written by GIM practitioners discussing their work from an interventional point of view, and (b) Peer-reviewed articles as well as unpublished and published dissertations - national and international - with a focus on GIM that were written or accepted between 2000 and 2017. (c) Articles written in English, Afrikaans, Dutch and German (i.e. publication language) were included as the researchers felt equipped to understand and interpret studies in all the above-mentioned languages.

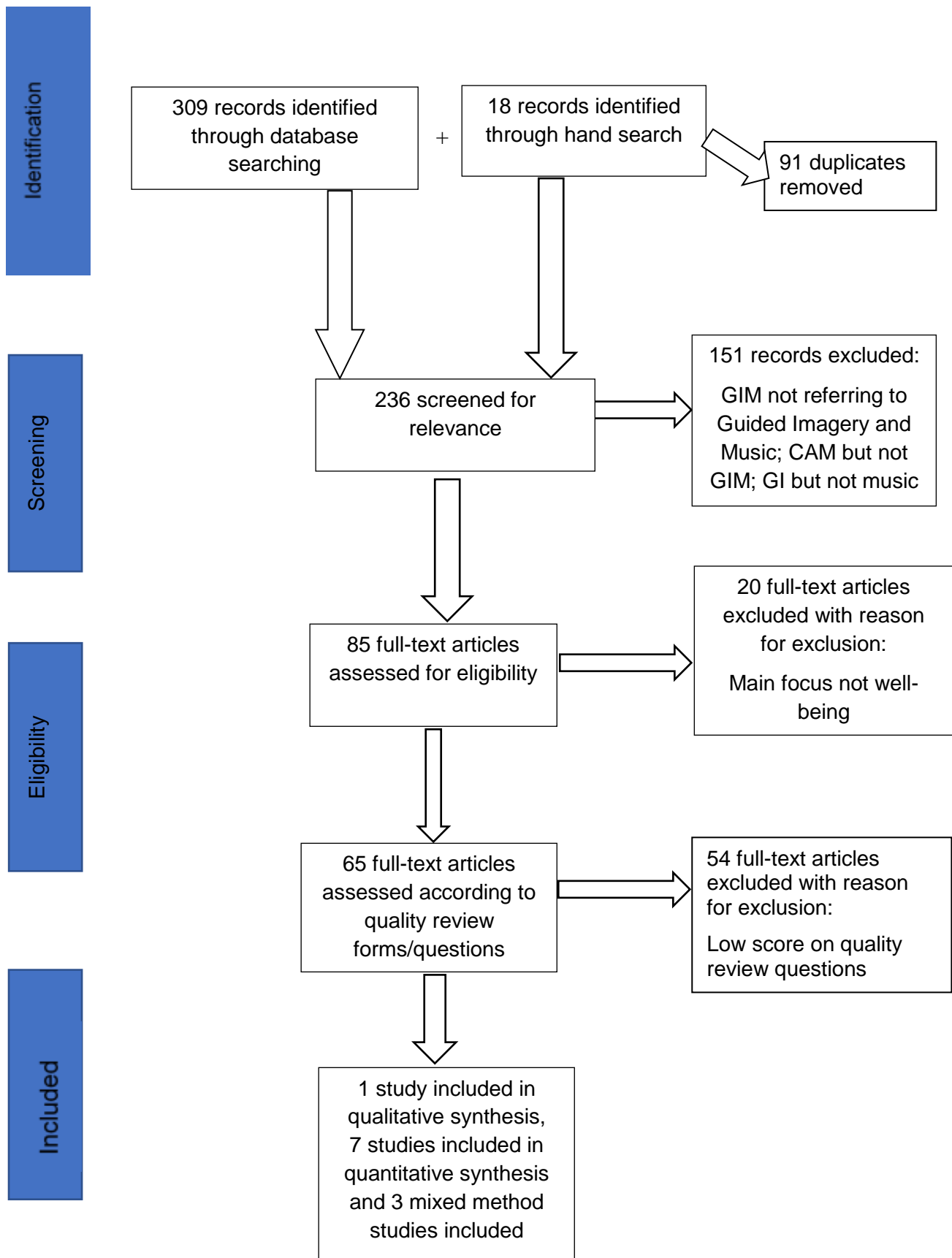
Excluded from this review: (a) Peer-reviewed publications and grey literature that had been published before 2000, (b) articles which did not focus on the influence of GIM on the well-being of clients, and (c) articles in other languages not mentioned above.

The PRISMA-P reporting guideline was used as a guide for this purpose. The 17-item checklist was specifically designed by Moher et al. (2015) to facilitate the preparation and reporting of a robust protocol for systematic review purposes. Relevant studies were searched according to the PRISMA flow chart (Moher, et al., 2009).

Databases searched included EBSCOhost, Emerald, JSTOR, Nexus, Optentia, Scopus, Taylor & Francis, Web of Science, Google Scholar, ProQuest and other online journals. The researchers accessed 309 articles and dissertations, and 18 more records were identified through either personal e-mails or reference lists from previously accessed resources. No studies published in Afrikaans, Dutch or German were found. One dissertation originally published in Danish, but translated into English, was included. In order to focus the search on EBSCOhost, disciplines that were included were: academic search premier; eBook collection; E-Journals; Health Source; MasterFILE Premier; Medline; OpenDissertations; PsychARTICLES and PsychINFO. Of all the records found, 91 were removed because of duplication between databases. Where the search result included a dissertation from which an article was derived, both the dissertation and the article were considered, and the best option was included, depending on which of the two had the highest quality review score.

After meticulously scrutinising for relevance, 151 more records were excluded. The search term GIM posed a problem, as it also serves as an abbreviation for General Internal Medicine. These records were eliminated first. This search term was then replaced with BMGIM (Bonny Method of Guided Imagery and Music) or the complete phrase: Guided Imagery and Music. A second group of records was excluded as they focused on Guided Imagery but not including music. A third group of records was excluded as they focused on

Complementary and Alternative Medicine (CAM) but not specifically on GIM. For a summary of this process refer to the PRISMA flow chart of this study (Figure 1).



**Figure 1.** PRISMA flow chart of this study

The abstracts and results of the 85 remaining records were then read and re-read, and 20 more records were omitted as they were not deemed eligible in terms of their main focus (well-being). The quality of the remaining 65 records was then reviewed according to the quality review screening which is set out in tables 1 and 2. Eleven studies adhered to all inclusion criteria and seemed to have a low risk of bias and were thus included in the systematic review. This final selection of articles will be discussed in further detail.

**Table 1**

**Quality Review Form for literature using qualitative methodology**

1. Are the aims and objectives clearly stated?
2. Is there a clear description of the context?
3. Is there a clear description of the sample, how it was recruited and justification for selection?
4. Is there a clear description of the methods used to collect and analyse data?
5. Does the sensitivity of the method match the research question?
6. Were the data collection and recordkeeping systematic?
7. Is the study sufficiently oriented around participants and phenomena in their original contexts?
8. Was the analysis systematic?
9. Were attempts made to establish the validity of the data analysis?
10. Is sufficient original data included to mediate between evidence and interpretation?

Questions 1-4, 9 & 10: Harden (2004)

Question 5, 6 & 8: Blaxter (2003)

Question 7: Abrams (2005)

*Note.* From McKinney & Honig, 2017

**Table 2**

**Quality Review Form for literature using quantitative methodology**

|     |  |
|-----|--|
| 1.  | Did the study address a clearly focused issue?                         |
| 2.  | Did the authors use an appropriate method to answer their question?    |
| 3.  | Were the subjects recruited in an acceptable way?                      |
| 4.  | Were the measures accurately measured to reduce bias?                  |
| 5.  | Were the data collected in a way that addressed the research issue?    |
| 6.  | Did the study have enough participants to minimize the play of chance? |
| 7.  | How are the results presented and what is the main result?             |
| 8.  | Was the data analysis sufficiently rigorous?                           |
| 9.  | Is there a clear statement of findings?                                |
| 10. | Can the results be applied to the local population?                    |
| 11. | How valuable is the research?  |

*Note.* From Institute for Public Health Sciences, 2002

**Quality assessment**

In order to ensure quality and keep risk of bias to the minimum, the quality reviewing questions (refer to Table 1 and Table 2) used for inclusion of the final eleven articles, were scored. The full articles were re-read by the researchers for scoring purposes. If the answer to any of the given question was YES, a score of 1 was given, if the answer was NO or UNCLEAR, no score was allocated (McKinney & Honig, 2017). For quantitative studies, the highest score could be 11, for qualitative studies the highest score could be 10, and for reviews, the score could be 6, as these were the number of review questions for each type of study. For mixed method studies, both the questions for quantitative and qualitative studies were asked and scored. Following the guidelines used by McKinney and Honig (2017), only quantitative studies with a score of 6 or higher; qualitative studies with a score of 5 or higher; and for reviews a score of 3 or higher were included for further review. For mixed method studies the score had to be 12 or higher since 21 questions were scored.

Ultimately, no chapters from seminal works or reviews were included. Seven quantitative studies, one qualitative study, and three mixed method studies were included in the present review.

(Since no reviews were included, the quality assessment questions are not included in this article).

Of the eleven studies, six are post graduate dissertations and two are articles derived from dissertations. It is also worth noting that eight of the eleven included studies were published since 2010, which might be indicative of a new interest in GIM as an intervention method.

The quality assessment questions that posed the most problems were question 6, question 8 and question 10 of the quality review form for quantitative studies.

Question 6: ‘Did the study have enough participants to minimize the play of chance?’ could not be scored in any of the sources as all the participant numbers were very low in comparison to other research fields. However, this seems to be the case throughout the spectrum of evidence in eight of the included studies (Allen, 2010; Beck, Hansen & Gold, 2015; Bhana, 2016; Bonde, 2005; Burns, 2001; Heiderscheit, 2005; Murphy & Ziedonis, 2016; Poćwierz-Marciniak & Bidzan, 2017). This seems to be a limitation in the music therapy research field in general (Matney, 2018). A valid reason for the low number of participants might be the extreme sensitivity and privacy of clients in various settings where this kind of intervention is used (Bae, 2011).

Question 8: ‘Was the data analysis sufficiently rigorous?’ did not score high either as this is linked to the number of participants in many cases. Statistical differences are difficult to show when sample sizes are small. From most of the studies used in this literature review it, is clear that more emphasis is put on effect size as this emphasises the difference between the size of effect of the intervention between the interval of start to finish rather than the size of the sample (Matney, 2018). The difference between the control group and the experimental group also plays an important part, as the exact alternative(s) available to them can have an influence on the effect size (Jones, 2006). An exception was found in the qualitative study where rigorous analyses from various perspectives were included (Lotter, 2017).

Question 10: ‘Can the result be applied to the local population?’ was the third question with a low score, as this particular intervention has been used in many different settings (McKinney & Honig, 2017).

**Table 3****Detailed list of studies included in this review**

| Author & Year     | Title  | Participants   | Methodology  | Measurement   | Length                            |
|-------------------|--|--|--------------|---|-----------------------------------|
| Burns 2001        | The effect of the Bonny Method of Guided Imagery and Music on the mood and life quality of cancer patients   | <i>n</i> =8;<br>4 experimental group,<br>4 control group   | Quantitative | Profile of Mood States (POMS); Quality of Life Cancer (QOL-CA)  | 10 weeks;<br>10 sessions          |
| Bonde 2005        | The Bonny Method of Guided Imagery and Music (BMGIM) with cancer survivors. A psychosocial study with focus on the influence of BMGIM on mood and quality of life                      | <i>n</i> =6  | Mixed method | Hospital Anxiety and Depression Scale (HADS), Quality of Life Questionnaire Cancer 30 (QLQ-C30) & Sense of Coherence (SOC) & interviews | 10 sessions                       |
| Heiderscheit 2005 | The Effects of the Bonny Method of Guided Imagery and Music (GIM) on Adults in Chemical Dependency Treatment: Sense of Coherence, Salivary Immunoglobulin A and Interpersonal Problems | <i>n</i> =19;<br>10 experimental group,<br>9 control group | Quantitative | SOC, immunoglobulin A & Interpersonal Problems Scale (IIP-SC)   | 4-7 sessions;<br>1 session weekly |
| Allen 2010        | The effectiveness of group music psychotherapy in improving the self-concept of breast cancer survivors  | <i>n</i> =11;<br>5 experimental group,<br>6 control group  | Quantitative | Body Image after Breast Cancer Scale (BIBCQ) & Tennessee Self-Concept Scale (TSCS); general wellbeing scale (Visual Analogue Scale)     | 10 weeks;<br>10 sessions          |

|                          |   |   |              |   |                          |
|--------------------------|---|---|--------------|---|--------------------------|
| Bae 2011                 | Effect of group music therapy on student music therapists' anxiety, mood, job engagement, and self-efficacy   | <i>n</i> =20; 2 different interventions (music and imagery vs drumming) | Quantitative | Utrecht Work Engagement Scale (UWES), State Trait Anxiety Index (STAI), POMS, Positive Affect Negative Affect Schedule (PANAS) & General Self-efficacy (GSE)  | 4 sessions;<br>4 weeks   |
| Moe 2012                 | Group guided imagery and music therapy for inpatients with Substance abuse disorder   | <i>n</i> =18  | Mixed Method | SOC; semi-structured interviews   | 2 years;<br>10 sessions  |
| Beck, Hansen & Gold 2015 | Coping with work-related stress through Guided Imagery and Music (GIM): Randomized Control Trial  | <i>n</i> =20; 13 experimental group, 7 control group                    | Quantitative | Cortisol, testosterone & melatonin; World Health Organisation Well-being Index (WHO-5); POMS; Perceived Stress Scale (PSS); Major Depression Index (MDI); Generalised Anxiety Disorder (GAD); Karolinska Sleep Diary (KSQ); Single question work readiness; Physical distress unpublished | 9 weeks;<br>6 sessions   |
| Bhana 2016               | Implementation of Bonny Method of Guided Imagery and Music (BMGIM) to complement care provided in selected cancer interim homes in Gauteng province | <i>n</i> = 24; 19 experimental group, 5 control group                   | Mixed method | Symptom Distress Scale (SDS), Psychological General Well-Being Index (PGWBI) & Spiritual Index of Well Being (SIWB)   | 6 weeks;<br>1-5 sessions |
| Murphy & Ziedonis 2016   | Group guided imagery and music for adults in addiction treatment:<br>A pilot randomized control trial feasibility study                             | <i>n</i> =42; 16 completed, 9 experimental group, 7 control group       | Quantitative | SOC, Beck Depression Inventory (BDI) & Importance Confidence Readiness motivational ruler (ICR)   | 8 sessions               |

|                                  |   |   |              |   |                         |
|----------------------------------|---|---|--------------|---|-------------------------|
| Lotter 2017                      | The qualitative affordances of active and receptive music therapy techniques in major depressive disorders and schizophrenia-spectrum psychotic disorders | <i>n</i> =20  | Qualitative  | Clinical notes and semi-structured interviews; in-depth thematic analyses | 8 sessions              |
| Poćwierz-Marciniak & Bidzan 2017 | The influence of music therapy on quality of life after a stroke  | <i>n</i> =61;<br>30 experimental group,<br>31 control group | Quantitative | Health Related Quality of Life (HRQL)                                     | 5 weeks;<br>10 sessions |

*n*=249

**Table 4****List of variables measured according to population groups**

| <u>Variables</u>                         | <u>Measure</u>               | <u>Population</u>   | <u>n</u>   | <u>No</u> |
|--|------------------------------|---|------------|-----------|
| Psychological General Well-Being         | PGWBI                        | Cancer patients   | 24         | 1         |
| Spiritual Well-Being                     | SIWB                         | Cancer patients   | 24         | 1         |
| General Well-Being                       | VAS; Qualitative interviews  | Cancer patients; Depression & schizophrenia-spectrum                                | 11+20      | 2         |
| Well-Being                               | WHO-5                        | Stressed workers  | 20         | 1         |
| Quality of Life (Cancer)                 | QOL-CA; QLQ-C30              | Cancer patients   | 6+8        | 2         |
| Quality of Life (Health Related)         | HRQL                         | Stroke patients   | 61         | 1         |
| Mood States                              | POMS; Qualitative interviews | Cancer patients; MT students; Stressed workers; Depression & schizophrenia-spectrum | 8+20+20+20 | 4         |
| Sense of Coherence                       | SOC                          | Addiction (3) cancer patients (1)   | 19,18,42+6 | 4         |
| Positive Affect Negative Affect Schedule | PANAS                        | MT students   | 20         | 1         |
| Self-efficacy                            | GSE                          | MT students   | 20         | 1         |
| Self-Concept                             | TSCS; Qualitative interviews | Cancer patients (2); Depression & schizophrenia-spectrum                            | 11+20+20   | 3         |
| Importance Confidence Readiness          | ICR                          | Addiction   | 42         | 1         |
| Resilience                               | Qualitative interviews       | Depression & schizophrenia-spectrum   | 20         | 1         |

**Table 5****List of key concepts and outcomes**

| Key concept  | Measure, Author & Date                           | Outcome/Link to research question   |
|--|--|---|
| Well-being   | General well-being scale<br>Allen 2010           | Noticeable increase of well-being before and after intervention   |
|  | WHO-5<br>Beck et al 2015                         | Large effect size after intervention  |
|  | PGWBI<br>Bhana 2016                              | After just two sessions there is an improvement in three out of the four questions regarding positive well-being and one out of four questions regarding vitality; after 5 sessions there is reported improvement in all questions regarding general health |
|  | SIWB<br>Bhana 2016                               | Significant improvement in both self-efficacy and life scheme between session 1 and session 3 as well as between session 1 and session 4  |
|  | Qualitative interviews<br>Lotter 2017            | Verbal self-expression of increased motivation and emotional expression   |
| Quality of life  | QOL-CA<br>Burns 2001                             | Substantial increase in all factors, also sustained with follow-up  |
|  | QOL- C30<br>Bonde 2005                           | Small to medium effect sizes after GIM; no significant result in statistical analysis   |
|  | HRQL<br>Poćwierz-<br>Marciniak &<br>Bidzan, 2017 | Significant improvements noticed in physical functioning, general health, vitality, communication, emotional health and alertness   |
| Sense of coherence (Meaning, manageability, comprehensibility) | SOC<br>Bonde 2005                                | All factors significantly higher after intervention; medium effect size post intervention; small to medium effect size with follow-up   |
|  | SOC<br>Heiderscheit 2005                         | Manageability and comprehensibility significantly higher after intervention; meaning less significant   |
|  | SOC<br>Moe 2012                                  | Large effect size on 17 out of 18 participants; interviews signified that GIM was an important part of the treatment with curative factor   |

|                          |  |   |
|--------------------------|--|---|
|                          | SOC<br>Murphy &<br>Ziedonis 2016         | No statistically significant changes, small effect size noted   |
| Profile of mood states   | POMS<br>Burns 2001                       | Total mood disturbance scores lower after intervention and at follow-up; negative emotional states reduced and slight increase in vigour-activity               |
|                          | POMS<br>Bae 2011                         | Decrease in mood disturbance and anxiety after intervention   |
|                          | POMS<br>Beck et al 2015                  | Large effect size noted after intervention  |
| Self-efficacy            | GSE<br>Bae 2011                          | Significant increase in job-engagement and self-efficacy  |
| Resilience               | Qualitative<br>interviews<br>Lotter 2017 | Self-reported reclamation of resilience and energy  |
| Positive/Negative Affect | PANAS<br>Bae 2011                        | No difference noted in positive and negative affect   |
| Self-concept             | TSCS<br>Allen 2010                       | Significant difference as far as identity, family and personal and body image subscales are concerned, no noticeable difference on social or academic subscales |
|                          | Qualitative<br>interviews<br>Lotter 2017 | Increase in self-confidence and spontaneity reported  |
| Confidence               | ICR<br>Murphy &<br>Ziedonis 2016         | No significant statistical difference, but there was a small effect size noted.   |

## **Data extraction**

Table 3, designed by the researchers, includes the following information: the author(s) and publication date, the title of the article/dissertation, the number of participants (including control groups), the methodology, the measures, and the number of interventions as well as the time span from beginning to end of the experiment. All studies referring to well-being were recorded. Studies referring to more specific forms of well-being such as spiritual and psychological well-being and well-being related psychological variables such as quality of life, hope, self-esteem, self-awareness, resilience and improved mood which were associated with forms of well-being, were also incorporated. Another related variable which was included, was sense of coherence (SOC). This variable was included in four of the eleven studies. The SOC scale includes questions around the quality of life, meaning and self-efficacy (Antonovsky, 1993). All the variables included in the research studies are specified in Table 4 which shows the different variables as well as the instrument that was used for measurement. This table also points out the population that was used, the number of studies which included the particular variable and/or measurement instrument and how many participants were included.

Other variables that were researched in the selected literature but have no direct relation to the research questions are not discussed or included in the table.

## **Key concepts**

Analysing the chosen studies through thorough reading and re-reading assisted with finding topics and key areas of interest pertaining to this study. All the studies were focused on the effect of Guided Imagery and Music, while two studies - Bhana, 2016 and Murphy & Ziedonis, 2016 - also mention the possible implementation of GIM as an intervention in their titles.

Five of the studies focused on contexts where the population groups have a physical illness. Allen (2010), Bhana (2016), Bonde (2005) and Burns (2001) all researched the possible influence of GIM on cancer patients as population groups while another medical population (stroke patients) was used in the study by Poćwierz-Marciniak and Bidzan (2017). Three studies used Substance Use

Disorder (SUD) clients as a population group (Heiderscheid, 2005; Moe, 2012; and Murphy & Ziedonis, 2016). The population groups used for the remaining three studies are patients with mental health disorders (Lotter, 2017), stressed workers (Beck, Hansen & Gold, 2015) and music therapy students (Bae, 2011).

Key concepts that are of importance for this study that were researched include well-being, quality of life, sense of coherence, self-efficacy, self-concept, resilience, confidence, mood states and positive/negative affect. Thirteen more variables were also addressed in the studies, e.g. anxiety, stress and depression (Bonde, 2005; Bae, 2011; Murphy & Ziedonis, 2016), that are less relevant to the current research question. Similarly, some themes that were identified in the qualitative study, e.g. tensing and un-tensing, and musical expression and music making (Lotter, 2017) will not be discussed in detail.

Various measurement instruments were utilised for some of the dependent variables. Well-being was measured using four different instruments across three studies as well as through thematic analyses after interviewing patients in the qualitative studies. Quality of life was also measured using three different instruments in the three studies. On the other hand, one instrument was used for measuring sense of coherence (SOC) across four different studies, including the three studies with SUD clients as a population. The POMS (Profile of Mood States) measurement instrument was the other tool utilised in more than one study (three studies). Table 5 represents a summary of this.

## **Results**

A total of 327 studies published between 2000 and 2017 were retrieved from various databases. Duplications were removed, and eleven titles met the criteria for this review. Please refer to Figure 1 for this study's PRISMA flow chart. These eleven studies included between four and ten GIM sessions representing 249 adult participants across six different settings. The samples were taken from various settings including cancer patients ( $n = 4$ ), stroke patients ( $n = 1$ ), music therapy

students ( $n = 1$ ), people with work stress ( $n = 1$ ), people with major depressive disorders and schizophrenia-spectrum psychotic disorders ( $n = 1$ ) and people in addiction treatment ( $n = 3$ ).

A total of 26 variables were researched of which 13 were less related to this study and 13 were relevant. Well-being, quality of life and sense of coherence were measured in more than one study, but different measurement instruments were used. A total of 28 instruments were utilised across the ten quantitative and mixed-method studies. Even when the same instrument was used e.g. POMS, in two studies the researchers made use of the complete scale while in the third study, the short form was used. Variables measured ranged from psychological to physical indicators.

The research designs of the different studies also varied. This can be summarised as follows: randomised controlled trial ( $n = 6$ ); non-randomised controlled trial ( $n = 1$ ); single-group pre-post, mixed methods ( $n = 1$ ); single group pre-post-follow-up repeated measures ( $n = 1$ ); and single group, pre-mid-post-follow-up repeated measures ( $n = 1$ ). The single qualitative study made use of a case study design ( $n = 1$ ).

Studies were representative of four countries, including America ( $n = 5$ ), Denmark and Poland in Europe ( $n = 4$ ) and South Africa ( $n = 2$ ). Although the original Bonny method of GIM was described for individual therapy where a dyad is formed between the client and the therapist (McKinney & Honig, 2017), many adaptations are being used and accepted throughout the practice of music therapy. Eight of the studies that were included in this review were GIM intervention in group settings and only three implemented individual sessions (Bhana, 2016; Lotter, 2017; Poćwierz-Marciniak & Bidzan, 2017).

## **Discussion**

The purpose of this systematic literature review was to find evidence of improved well-being through the intervention of Guided Imagery and Music. Studies that suited the inclusion criteria ranged in variables researched as well as outcomes ranging from small to large effect sizes across a spectrum of populations. In terms of well-being, positive outcomes were noted across four studies (Allen, 2010; Beck et al., 2015; Bhana, 2016; Lotter, 2017), although different measurement

instruments were used. Three different population groups (cancer patients, major depressive disorder and schizophrenia-spectrum patients and stressed workers) were involved, therefore replication would be necessary.

Three studies measured quality of life (Bonde, 2005; Burns, 2001; Poćwierz-Marciniak & Bidzan, 2017). The population of these studies all had physical health problems: two groups were patients suffering from cancer (Bonde, 2005; Burns, 2001) and the third was patients recovering from a stroke (Poćwierz-Marciniak & Bidzan, 2017). The significance ranged from small effect size to quite a substantial improvement. In one study some factors showed improvement while others were not significantly changed (Poćwierz-Marciniak & Bidzan, 2017). All three of these studies used different measurement instruments. Therefore, replication is necessary.

Sense of coherence was evaluated in four different studies where three studies used the same population (people suffering from SUD) (Heiderscheit, 2005, Moe, 2012; Murphy & Ziedonis, 2016) and the other was cancer patients (Bonde, 2005). The outcomes across these four studies differed dramatically. In the cancer population, all factors were higher after the intervention, with a medium effect size post intervention and sustained to follow-up, while Heiderscheit (2005) found that in the manageability and comprehensibility factors, there was a significant difference after intervention while in the meaning factor the influence was less significant. Moe (2012) found that large effect size was presented in 17 out of the 18 participants while only a small effect size was noticed by Murphy and Ziedonis (2016). The diverse results in the three studies with similar population motivate further investigation.

Three studies included the variable of mood states (Bae, 2011; Beck et al., 2015; Burns, 2001) and because across all the studies, the results showed positive effects of the intervention on the mood states, it seemed important to report on the outcome, as two (Bae, 2011; Beck et al., 2015) out of the three populations did not have a physical illness. This is similar to the SUD population, consisting of clients who are not physically ill, but are often plagued by negative mood states and

anxiety (Szalavitz, 2016). It would thus be worth conducting future research measuring the mood states of the SUD population.

Self-efficacy and resilience which are both core constructs of PsyCap were measured in two studies. Bae (2011) measured self-efficacy and positive and negative affect in music therapy students before and after GIM interventions with a significant increase in their self-efficacy, but no important changes were recorded for positive and negative affect. Unfortunately, this was the only study measuring these variables and the number of participants was very small ( $n = 20$ ).

Lotter (2017) makes specific mention of the resilience and energy that certain participants experienced through this intervention. Again, this was the only study investigating resilience and it focused on a small group - only 20 participants.

The last two concepts that were of major importance for this study was that of self-concept (Allen, 2010 and Lotter, 2017) and confidence (Murphy & Ziedonis, 2016) which were measured quantitatively by only one study each. Although no noticeable difference was measured on the social and academic subscales, the difference was measurably significant in the subscales of family, and personal and body image. Only a small effect size was noticed in the measurement of this variable. In all three cases it seems obvious that not enough research has been done for a convincing statement with regards to the value of GIM interventions.

Looking at the results as a whole, it becomes noticeable that the population group that was mostly used in research around the effects of GIM, was cancer patients, and an important concern was their well-being. Only one other population group suffered from a physical condition: the group recovering from having had a stroke. Mental illnesses that were included in this study were patients with depression and patients on the schizophrenia-spectrum, as well as workers who were put on sick leave because of high levels of stress. Music Therapy students (a healthy population), as well as SUD populations, where there is no physical condition, but often an underlying mental disability (Szalavitz, (2016), were also included in research.

It seems that GIM is mostly used in the medical settings, but that it also has been used for mental health patients with good results. The fact that healthy clients who are seeking growth and transformation are also susceptible for GIM, opens possibilities for increased well-being for many different population groups.

The three studies which included SUD populations (Heiderscheit, 2005; Moe, 2012; Murphy and Ziedonis, 2016) all focused on Sense of Coherence. This leaves room for many other well-being constructs which have not yet been explored in this population group.

Murphy and Ziedonis (2016) also did a feasibility study for the implementation of GIM in SUD recovery facilities and of all the studies included in this review, this population group was the largest. They also alluded to the positive feedback of both staff and clients with regards to the feasibility of GIM interventions at the recovery facility. Although the group was large, less than half completed the study due to various legitimate reasons, e.g. discharge or transfer to another facility. Consequently, the researchers used this as motivation for further research.

These unstable circumstances for SUD clients, both inpatient and outpatient, is an ongoing problem. However, Moe (2012) reports that only four out of 18 participants relapsed two and a half years after completing the programme which is a relatively low relapse figure (Meade et al., 2015). He thus proposes further research as the finding of this particular study seems very positive. And the small sample number needs to be replicated in order for the result to have any scientific significance.

## **Implications**

None of the studies revealed any negative results and the inclusion of Guided Imagery and Music interventions seem to be promising across a range of populations and feasible in an array of settings. Similar outcomes of variables across populations seem positive as the effect of the treatment is not restricted to only one population or setting (McKinney & Honig, 2017).

McKinney and Honig (2017), who published the first GIM systematic review, alluded to the fact that the quality of life and well-being of specifically cancer patients seemed to be enhanced by

a series of GIM sessions. In addition, they also mention that some variables which were replicated with similar outcomes across different populations seemed promising for future implementation and research.

### **Strengths and limitations**

This systematic literature study is the first ever to investigate whether Guided Imagery and Music has a positive effect on the well-being of clients. Only one earlier systematic review on the outcomes of GIM exists (McKinney & Honig, 2017), however, the focus of their review was not on well-being but rather focused on health outcomes, particularly physical health, and psychological health with emphasis on anxiety and depression. Their review only included GIM sessions with individuals who had a series of at least six GIM interventions, and they excluded case studies.

The current literature review employed as broad a search net as possible in order to include all possible studies in the field thus far, inclusive of grey literature, such as unpublished dissertations and theses, and all methodologies and population groups. The protocol of a systematic literature review followed by the researchers was thorough and scientific. Although these can be viewed as strengths, the result was still that only eleven suitable studies according to the inclusion criteria were found and, even so, the variables ranged vastly with only four studies investigating the same concept. This indicates that GIM as an intervention is a relatively under-explored technique, pointing towards future research opportunities.

### **Future research**

Although the results seem overall positive, further research is necessary in order to replicate results that have been found thus far. The fact that the intervention seems to have a range of positive effects should become a motivation for researchers to do feasibility studies on various populations with bigger sample sizes. Only two studies included in this review were done in a South African context and the settings were respectively in a mental institution (Lotter, 2017) and in a hospital outpatient programme (Bhana, 2016). No research has been done in South Africa on the effect of GIM interventions in other settings. The music used in GIM programmes is mostly chosen from the

Western European classical genres. This music is very different to the cultural music that is listened to in South Africa. Bonny had the vision to leave the choice of music open to the trained GIM guide (Music Therapist) in terms of the needs of the specific client (Muller, 2017) Different protocols exist pleading for the inclusion of music therapy in facilities including SUD recovery (Ghetti, Chen, Fachner, & Gold, 2017; Megrnahan & Lynskey, 2018).

All the included studies had relatively low participant numbers due to the sensitivity around the privacy of patients. Any future research initiatives should consider attempting to enlarge sample sizes. Most of the studies made use of group interventions while individual sessions were implemented in only three studies. Two of these studies were conducted in South Africa in health settings. There is potential for further research specifically pertaining to individual GIM sessions with clients in other settings in South Africa.

## **Conclusions**

Through this systematic review of literature, evidence was found that GIM has an influence on the well-being of clients in various settings. Although the settings are varied, and it seems that GIM has been used more in medical settings, the results from different contexts show positive outcomes in mental and even healthy settings. Populations without any health-related or mental problems seeking help through GIM, are in need of personal growth and well-being, which relates to the Positive Psychology scope. More replication of existing research in a rigorous manner as well as new research should be encouraged to positively influence the development of theory and practice, particularly in countries such as South Africa as was mentioned earlier on. Findings seem promising in terms of using this kind of intervention in more settings.

The relationship between GIM interventions and Positive Psychology constructs has also been highlighted through this review. Further exploration and broader research are needed to establish and confirm the suggested relationship.

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## **CHAPTER 3**

### **Conclusions, limitations and recommendations**

This chapter serves as a review of the conclusions, limitations and recommendations that arose while doing the research for this study. First a summary of the study will be given after which the conclusions that were drawn will be highlighted. Then limitations that presented in the study will be indicated before recommendations regarding further research and practical applications will be discussed.

#### **3.1 Summary and conclusions**

The aim of this study was to find if any positive outcomes have been found through using GIM as an intervention on the well-being of clients. Since GIM is a psychodynamic therapy technique that, through using music, has strength-building and personal growth at heart, there was a strong possibility that well-being might be enhanced through this kind of intervention. Positive Psychology has the same goals in mind, but the relationship between GIM and Positive Psychology has never been researched before.

The methodology that was chosen to address this inquiry most effectively, was systematic literature review as it is thorough and it is also referred to as an evidence summary (Matney, 2018). The systematic literature review is seen as a methodology that can stand independently as it is replicable if the correct steps are followed (Creswell, 2014). It is also becoming more and more valued in the health care research environment (Moher, Liberati, Tetzlaff, Altman & The PRISMA group, 2009) as this highlights gaps in the research, creating future research opportunities, as well as helping to inform better practice (Grant & Booth, 2009).

According to the Centre for Reviews and Dissemination (2009), five steps are to be followed in the systematic literature review. These steps are described by Cook, Mulrow and Haynes (1997) as follows:

Step 1: Formulate a research question

Step 2: Do a comprehensive search of the available literature

Step 3: Evaluate the retrieved literature in terms of validity and relevance

Step 4: Summarise the results

Step 5: Contextualise and interpret the results in a practical and systematic way

Matney (2018) includes the following methodological characteristics in the systematic literature review: A comprehensive search with specified inclusion and exclusion criteria, primary studies, single or multiple studies, quality assessment, heterogeneous methodologies with homogeneous outcomes and contexts, effectiveness and meaning or impact should be measured, theory should either be developed or analysed, and gaps in the literature should be highlighted. All these characteristics were adhered to in the methodology of this study.

The original research question informed the methodology, as it should, according to Matney (2018), but the question was finally formulated assisted by the PICO model where the Patient (client) is considered, then the Intervention, thirdly the Comparison and the Outcome (Kloda & Bartlett, 2013). In this review all client populations were included, the intervention was limited to GIM and all its adaptations, the GIM intervention had to be compared to another or a standard intervention and the outcome had to point towards well-being. The research question informed step 2 in terms of formulating inclusion and exclusion criteria as well as relevance. A broad search for literature was employed according to the PRISMA flow chart (Moher et al., 2009), starting with 327 studies and excluding duplicated and irrelevant records, resulting in a total of 65 remaining.

In step 3, these records were further scrutinised for quality according to quality review questions for each kind of study (qualitative, quantitative, mixed methods and reviews). A total of 11 studies (Allen, 2010; Bae, 2011; Bonde, 2005; Beck, Hansen & Gold, 2015; Bhana, 2016; Burns, 2001; Heiderscheit, 2005; Lotter, 2017; Moe, 2017; Murphy & Ziedonis, 2016; Poćwierz-Marciniak & Bidzan, 2017) remained that were then systematically reviewed according to step 4.

The results were summarised in a table which included the title, author and date of the studies. A column was devoted to methodology, another to the number of participants, the number of interventions and the duration of the study. Lastly a column was included stating all measurement tools which were utilised for each study. From this table the measurement instruments could be linked to the specific well-being variable that was measured by each study, how many clients were involved from what kind of setting as well as how many studies measured the same or similar variables. This was represented in another table.

A last table was created for step 5. This table summarised the outcomes of each of the variables that was measured that was directly related to the research question of this study. With this information at hand in a structured way, it was easier to contextualise and interpret the data. The overview of this table assisted in summarising the conclusions as well as informing future implementation for practice and research.

The results of this systematic literature review include that well-being (psychological, spiritual and general well-being) was positively influenced by GIM (Allen, 2010; Beck et al., 2015; Bhana, 2016 and Lotter, 2017). Other constructs related to well-being that were also positively influenced included resilience (Lotter, 2017), quality of life (Bonde, 2005; Burns, 2001 and Poćwierz-Marciniak & Bidzan, 2017), sense of coherence (Bonde, 2005; Heiderscheit, 2005; Moe, 2017 and Murphy & Ziedonis, 2016), mood states (Bae, 2011; Beck et al., 2015, Burns, 2001 and Lotter, 2017), positive and negative affect as well as self-efficacy (Bae, 2011), self-concept (Allen, 2010 and Lotter, 2017) and confidence (Murphy & Ziedonis, 2016).

It was interesting to notice that various measuring instruments were used in different studies, even when the same variable was measured. Well-being was measured in four of the 11 studies, using five different instruments, Quality of life was measured in three different studies, each using a different measuring instrument. On the other hand, sense of coherence was measured in four studies using the same instrument for measurement and mood states were measured in four studies using the same instrument in three studies and qualitative interviews in the fourth. The fact that positive

outcomes from GIM interventions were found using different measuring instruments could mean that this intervention certainly hold promise. It further suggests that GIM benefits are multifaceted.

The 11 identified studies represented four different countries from three different continents and a variety of settings: two different kinds of health settings (cancer and stroke patients) and one mental health setting where two diagnoses (depression and schizophrenia) were included. Other populations represented in this study were stressed workers and music therapy students and people in substance use disorder facilities. This could mean that GIM interventions are valuable not only in single settings, but quite broadly. Furthermore, mental illnesses, e.g. depression, anxiety etc. are often symptoms of physical, particularly terminal illnesses as well as other stress-related conditions which all have a detrimental impact on the general well-being of the patient. GIM could contribute hugely to the already existing treatment programmes and methods. Also, as the results come from different countries, GIM cannot only be seen as a successful treatment intervention in certain contexts or cultures, but could be used globally, possibly as music is such a universal construct.

An important finding was that no negative influences were reported from clients who have undergone GIM interventions and in qualitative feedback it became clear that clients were positive about this intervention. This seems promising for future implementation. The relationship between GIM and Positive Psychology was also established but needs further exploration. Only constructs related to well-being was explored, which leaves room for many more Positive Psychology constructs such as hope, optimism, flow, perseverance, gratitude etc.

### **3.2 Limitations of the study**

As is the case in any scholarly research project, limitations were also a reality in this study. This is the second systematic literature of its kind, yet only 11 eligible studies were identified. Although a very broad search was conducted, there is no guarantee that all available or existing research was included. There is a strong possibility that research studies in languages other than those that the researcher felt competent in, are also available.

Across the retrieved literature, six different population groups were represented, which makes it very difficult to generalise outcomes. In addition to this, 26 different variables were researched of which 13 were relevant to this study, but even so, different measuring instruments were utilised, which again puts generalisation of the findings in jeopardy. On the other hand, it is important to note that so many different population groups are included in only a few studies, might imply that this kind of intervention has a lot of potential for many different settings and diagnoses.

Another serious limitation was the small sample sizes used in all the retrieved literature. The biggest sample size was 61 participants which is a relatively small group. The second largest sample consisted of 42 participants, but, for various reasons, only 19 participants of the experimental group completed the experiment. The sensitivity of circumstances as well as client privacy are given as valid reasons for the small sample size in some cases (Bae, 2011). However, there were statistically significant result in spite of the small sample sizes. Although these small numbers are a general occurrence in this field of research (Matney, 2018), it makes generalisation of results impossible. More replication is necessary to enable generalisation.

### **3.3 Recommendations**

The findings of this systematic review of existing literature highlighted specific recommendations. There are implications both in terms of future research and implementation in practice. It is clear from the publication dates that interest has been sparked since 2010 with regards to GIM as a positive intervention, as eight out of the included studies were published since 2010. More than one protocol pleading for the implementation of music therapy as a positive intervention in various contexts have been published (Ghetti, Chen, Fachner, & Gold, 2017; Megranahan & Lyskey, 2018).

#### **3.3.1 Recommendations for Future Research**

From the preliminary results, it is clear that positive outcomes were found through the use of GIM as an intervention. The results are promising but are not yet conclusive at all. Thus, there are

vast opportunities for further research in the field. The studies were done in only six different settings. Replication is needed to support existing findings, as well as new research in contexts where this kind of intervention has not yet been tested.

It would also be valuable for future researchers to use state of the art measurement tools instead of many different variations. The example of well-being having been measured in four studies using five instruments has been mentioned. This will contribute to more generalisability and replication and comparison will be possible.

All sample sizes were extremely small. An attempt should be made by researchers to replicate these studies with bigger sample sizes in order to be able to generalise.

Studies were conducted in only four countries and three continents. There is thus room for expansion to other countries, cultures and contexts, not only to grow the pool of scientific knowledge, but also to develop new theory and create new practical possibilities.

As an example, it is worth mentioning that four out of the 11 studies were in the SUD context. All these studies were only group therapy. Research within this context with individual clients can be expanded.

The relationship between GIM interventions and Positive Psychology constructs was highlighted through the review. These four constructs included in PsyCap (hope, efficacy, resilience and optimism, which when abbreviated spelling the acronym HERO) are all related to well-being and are valuable in terms of recovering from addiction. While having a special interest in this concept from the perspective of the person with SUD, as such an individual would need to be courageous and possess all these characteristics to overcome the addiction. The concepts 'hero' and 'the hero's journey' are often referred to in Jungian depth psychology therapy (Henderson, 1964). One new way of attaining these character strengths (hope, efficacy, resilience etc.) might be through the GIM intervention. This can be yet another research option.

Two of these constructs (efficacy and resilience) have come up in the studies that were included in the review. There is thus room for further research to include the other two constructs as well.

### **3.3.2 Recommendations for Practice**

No negative findings were recorded in any of the studies. Opportunities to extend GIM interventions as a positive alternative and/or additional therapy method in various settings and contexts should be explored. Moe (2012) reported that both participants and staff alike expressed the opinion that the GIM sessions were helpful and can be accomplished easily in practice in terms of feasibility.

It cannot be ignored that addiction to a variety of substances, as well as multiple addiction, is a vast and growing problem (Keen, Sathiparsad, & Taylor, 2015). 2016 statistics indicate that more than 15% of South Africans have problems with drug abuse (Bayever, 2016). South Africa also has one of the highest per capita levels of alcohol consumption worldwide in people older than 15 (Swart, Seedat, & Nel, 2015). For this reason, it is very important to identify effective methods for treatment within the recovery process.

Most South African rehabilitation centres offer similar programmes which include the 12-step programme. Although the 12-step programme encourages accountability and offers support, it is difficult to judge just how effective this model has been, since there is a lack of availability of formal research due to the anonymity of the programme (Addiction Center, 2016). The approach seems to focus on weaknesses rather than on strengths. Implementing new, strengths-based interventions like GIM could contribute to more success in terms of recovery in such contexts.

Implementing GIM as a possible new or additional or alternative intervention for the treatment of substance abuse, particularly through tapping into Positive Psychology constructs such as those associated with the 'HERO within' (hope, grit, persistence, optimism, resilience, efficacy humility, etc.), might contribute to better outcomes and empowerment of the client who seeks help.

Lastly, it would also be valuable to compare GIM with other, similar interventions, e.g. guided imagery without music, or other music interventions in order to inform future practice. A recent systematic review regarding the effect of guided imagery on physiological and psychological outcomes on patients in ICU (Hadjibalassi, Lambrinou, Papastavrou & Papathanassoglou, 2018) gives rise to this question. In this study, the effect of guided imagery without music, thus an intervention method similar to guided meditation, was explored and researched. The outcomes were positive. The practical difficulties of patients in ICU might pose a problem for GIM as an intervention, but this has not yet been explored which leaves room for possibilities specifically for this critically ill and vulnerable population group. Although further research is very necessary, there is evidence that GIM interventions enhance the well-being of clients in various contexts.

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17<sup>th</sup> October 2018.

### EDITING DECLARATION

I hereby declare that I was responsible for the language editing of the mini-dissertation: *Guided Imagery, Music and Well-Being: A Systematic Literature Review* by Petra Jerling.

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***Editpro***

'We dot the i's and cross the t's'

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