Music therapy for postoperative pain management after mastectomy in Nigeria: An exploratory qualitative study

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Abstract

Purpose

This study aimed to explore the cultural elements of music in relation to pain management among women who have undergone mastectomy.

Method:

An exploratory qualitative study with in-depth interviews. Using the purposive sampling technique, 20 participants were recruited for the study. The interviews were conducted face to face at the surgical outpatient clinic and female surgical ward. Data collection continued until data saturation was reached. The inductive approach was used to analyse the data, and the concepts were organized into themes. The consolidated criteria for reporting qualitative research guidelines (COREQ) were used to report this study.

Results

The participants were between 28 and 83 years old and mostly diagnosed with Stage III breast cancer. Three main themes emerged from the data analysis, including pain experienced after mastectomy, culture and music, and the perception of music for postoperative pain management after mastectomy.

Conclusion

Knowledge and the utilisation of music as a therapy for pain management remains inadequate, but the participants perceived that music could be useful for pain control after mastectomy when the language and religion of the patient and the meaningfulness of the music were considered when introducing and selecting the music. This study will help open and extend the conversation about the utilisation and cultural elements of music that can be used clinically for pain management after mastectomy.

1. Introduction

Mastectomy, the partial or total removal of breast tissue [1] poses a high risk of postoperative pain [2]. Inadequately controlled pain can result in high blood pressure, tachycardia [3], increase anxiety, risk of chronic pain, analgesic consumption and poor satisfaction with care [4–6]. It has been suggested that inadequate pain control after mastectomy is the result of the use of pharmacological management therapy only [7–9]. To improve pain control, multimodal strategies that include the use of non-pharmacological interventions, such as music therapy (MT), have been recommended as an adjunct to pharmacological therapies [8, 9].
MT is a mind-body therapy that has been utilised for various purposes [10], including pain management after surgery. MT is thought to provide mental distraction that modifies painful stimulus in the spinal cord, as well as competes with pain transmission to the brain via the spinal cord [11]. MT uses a combination of emotional, physical, social, mental, spiritual, and aesthetic aspects of music to maintain and improve the recipient's health condition [12]. Considering the benefits of MT, such as its low cost, patient-focused care, and cultural relevance [13], a number of studies have implemented MT in different populations after surgery for pain management and have reported a significant reduction in the MT recipients' level of pain [11, 14–16] and preoperative anxiety [16–18]. These studies utilised culturally appropriate music in consideration of the patients' preference. However, none of these studies was conducted in a low- and middle-income country (LMIC) in Africa or from the perspective of the African culture of music for healing.

Most countries in Africa, including Nigeria, are classified as LMIC because of their economic status, slow development, and poor living conditions of its citizens [19]. Nigeria is a country with many ethnic groups categorized mainly as Igbo, Hausa, and Yoruba [20]. As in other parts of the world where music is considered an aspect of culture, different Nigerian ethnic group have a unique music tradition, myths and legends about the origins of music [21–23]. Moreover, music is believed to be an integral part of life and a means of healing, both in religious and social circles [13]. Despite the various views held by different ethnic groups in Nigeria, MT generally focuses on providing psychological and emotional treatment and has been used to heal patients who are bereaved, in a coma, tormented spiritually, or debilitated [13].

Nevertheless, little has been explored about MT in the Nigerian context, thus resulting in a paucity of evidence on how culture influences the perception, choices of music, and acceptability of MT as adjunct therapy for patient care in the hospital setting, including for pain management after mastectomy. Since the culture of music varies in different parts of the world, it is imperative to understand what music means to Nigerian patients and how those who have undergone mastectomy perceive the use of music for postoperative pain management. Therefore, this study was conducted to explore the cultural elements of MT, as well as the perception of MT as a means of pain management among Nigerian women who have undergone mastectomy.

2. Method

2.1 Design and sampling

This study used an exploratory qualitative design with in-depth interviews. The purposive sampling technique was used to recruit 20 participants from the surgical ward and the surgical out-patient clinic of a University Teaching Hospital in Nigeria for this study. The inclusion criteria were women aged 18 years and above; diagnosed with breast cancer and had undergone mastectomy within one month of the interviews; attending the post-surgical follow-up clinic; could communicate in English, Yoruba, or Pidgin-English either verbally or in writing; without existing chronic pain diagnosis; and consented to join the
study. Participants were excluded from the study if they had a pre-existing mental health disorder or cognitive impairment.

2.2 Data collection procedure and interviews

The participants were scheduled for an individual, face to face in-depth interview in a private room, at the surgical out-patient clinic or in the ward. A registered nurse with a bachelor’s degree was employed and trained as the research assistant (RA) by the first author on how to conduct the interviews. The interviews were audio-recorded and the second author was on site to monitor the RA. Moreover, the first author joined selected interviews randomly to assess the RA and ensure the fidelity of the data collected. The RA used an interview guide that was developed by the researchers to conduct the interviews and sent the recordings to the researchers after each interview. The researchers ensured that data saturation was achieved before concluding the data collection process.

2.3 Data analysis

The inductive data analysis approach was used to guide the data analysis process in this study. The data analysis commenced with verbatim transcription of the recordings and crosschecking of transcripts for accuracy. Then, the data was coded and recoded descriptively for patterns to identify similarities, differences, and sequence of the data. The codes were then organised into concepts that were used to connect the data and understand the influence of one concept on another. The consolidated criteria for reporting qualitative research (COREQ) guidelines were adhered to in this study (see Supplementary File 1).

3. Results

3.1 Demographics

Twenty women who had recently undergone mastectomy were interviewed. The mastectomy was carried out as a result of breast cancer diagnosis. The women were of various age groups; the youngest was 28 years old and the eldest was 83 years old (see Table 1). Most of the women were Yoruba (80%), Christian (95%), married (75%), and diagnosed with Stage III (45%) breast cancer.

3.2 Themes

The concepts identified from the qualitative data were categorized into three major themes (1) pain experienced after mastectomy; (2) culture and music; and (3) perception of music for postoperative pain management after mastectomy. Collectively, these themes reflected the participants’ overall experience of pain management and their way of life as it related to the use of music and how it can be incorporated into hospital care for patients undergoing mastectomy. The elements of these themes were further discussed in their sub-themes (see Table 2).

1. Pain experienced after mastectomy
The participants experienced different intensities of pain within the first 72 hours after mastectomy. With pharmacological management, the intensity of the pain declined over time. Thus, the participants’ experiences of pain after mastectomy were further described in two sub-themes.

**i. Severity of pain experienced within the first 72 hours after surgery**

The participants described their pain by recounting their day-to-day pain intensity and experiences, especially within the first 72 hours after surgery. Some described their pain experience as “too much,” and when asked to rate their pain on a scale of 0 to 10, their pain experience was between 6 and 8 within 24 hours after surgery, which indicates severe pain.

“I had a severe, unexplainable pain on the part that was...on the part that was operated, and then all the parts that were operated. I had severe and unexplainable pain” (Participant 8).

Despite the severity of their pain in the first 72 hour after surgery, the participants recounted a decline in its severity as the days went by. Mostly, by 72 hours postoperative period, the pain had declined to mild or moderate severity for most of the participants.

“You know immediately we do surgery, I have a serious pain. After some days, gradually it will be going down, going down; that's what I feel” (Participant 3).

**ii. Pain management strategies implemented by healthcare providers**

The participants recounted their experiences of pain management and expressed varying degrees of satisfaction with the way their pain was handled, despite its severity. Pharmacological therapy including Acetaminophen and Diclofenac were the common analgesics described by the participants. Only three participants mentioned the inclusion of Pentazocine in their pain management regime. While most of the participants described single-therapy analgesia, side effects were not commonly experienced with the pain medication, except for a few participants who had hot flashes, weakness, and dizziness after receiving intravenous acetaminophen. The participants explained that the effects of the medications were felt because it reduced their pain, but it was not a sustained effect.

“...they gave me...Diclofenac and then I don’t know what else they...Paracetamol I guess...and then after I think that one had expired [that is, the effect wore off] the pain came up again so severely that I started running temperature...” (Participant 8).

“....I think...Paracetamol, they gave me Pentazocine yesterday, that’s Fortwin....I realize that immediately they gave me...I think it's that Paracetamol, it will make me hot even to my vagina, my head everything. But within a seconds, it will go down” (Participant 15).

2. Culture and music

For each participant, culture and music had a unique meaning and/or relationship. This unique meaning and/or connection was further elaborated in three sub-themes.
i. Music as a lifestyle

Music was described as an aspect of daily living by most of the participants, some of whom actively participated in the listening process by singing along or dancing. The purpose of adapting music into their daily life included the prevention of a bad mood, brooding, and thanksgiving to God.

“I always listen to music because there is no other thing to do than to praise my maker, to praise God...not only when I’m sick, all the time“ (Participant 9).

Although music was a common thing to fall back on when they had negative thoughts, for most of the participants, listening to the preaching of religious leaders was also commonly described as a major part of their daily life.

“I listen to messages from my father in the Lord…“ (Participant 9).

ii. Elements of culture that influence music

Despite the differences in opinion of the participants about the relationship between music and culture, the distinct elements of culture that influenced music included language, meaningfulness, proverbs, respect, humility, dance, singing, instrumentation, and communication. Of these elements, language and meaningfulness were the most important elements of culture that influenced music, as the former enhanced their deep understanding of the music, while the latter passed a message that either reassured, educated, praised, or built up a person.

“When we relate it to language...what makes it unique...I don't know...like now, in Yoruba culture, if you...the way we listen to our own music, and dance to it, relates to the way our culture is. Do you understand what I am saying...then they relate...like I said earlier, you know music is a way of communicating to ourselves. Like if you want to praise somebody, you can praise the person with music and if you want to encourage somebody, you know, you can use it with music“ (Participant 5).

iii. Choice of music and culture

With music as a lifestyle for most of the participants, the choice of music was mostly described as influenced by their religion, the message it passed along, and the language in which the music was made. Since most of the music listened to by the participants in this study were mainly religious-based, there were two stances on the relationship between music, culture, and their choice of music. Thus, the genres of music that the participants listened to were mainly religious and old-fashioned African music, such as Afro-juju and highlife.

“Music is on its own, culture is on its own” (Participant 3).

“There is a relationship between music and culture....Yes...music affects culture and culture affects music“ (Participant 5).
Aside from religion and language, the message passed along through music was described as a major factor that influenced their choice of music. One participant explicitly mentioned that the “God factor” was the most important in the content of the music she listened to.

“...words of assurance, like who God really is...of his mercies, when I listen to music of...reminding me of the joy of salvation. Trusting that God never fails. Those are the words when you listen to it...it makes you feel reassurance. That you serve a living God. The God factor in them and a reminder of God's promises, what he can do. And a reassurance that he can do all things...” (Participant 8).

3. Perception of music for postoperative pain management after mastectomy

The understanding of the participants about the use of music and their perception of the effectiveness and how to use music for pain management emerged as an important theme in this study. To understand this theme, the concepts were further described in two sub-themes.

i. Knowledge of and willingness to adopt music for pain management

Almost all of the participants described that they had not heard of the use of music for pain management. One of the participants recounted that she had not thought of listening to music while in pain.

“Sometimes it will not occur, oh, but immediately it occur, you listen...because sometimes if pain is very serious, you will not even remember...it's that pain that will be...that will be...you may not remember to...but it's good to listen to music” (Participant 13).

Despite that music for pain management was not popular among the participants, there was a wide expression of interest in the idea of adopting music as an adjunct therapy for pain management after mastectomy. The reason for this positive attitude was rooted in the participants' belief in the benefits of listening to music. Yet some participants expressed doubts about music's effectiveness in pain management citing the severity of their pain after mastectomy.

“Ah! It will be fantastic. Because why I say it will be fantastic. You know, at a time, I could not sleep. So I just...I was listening to the music on my phone and it was somehow making me to feel relaxed” (Participant 5).

“...the pain from breast cancer is different from...pain, oh...ha the pain from breast cancer...ha!...it will take one's mind off the pain a little...but one will have to take his mind off it, maybe....I have not tried it before, I must be frank with you” (Participant 2).

The decision for some participants to use music for pain management was based on whether their choice of music would be considered.

“Ha, ha why not, yes, I will, I will. I will if the music suits...what I mean is you know in some cases...it depends on the type of music...if it is a solemn one, a kind of one that even when you that you are lying
down on your bed, you...are hearing it, you will want them to sleep...keep it on...you are enjoying it, things like that, it will be okay..." (Participant 6).

ii. Preferences and contextualising music therapy

The concept of utilizing music in the hospital setting was relatively new to the participants, and they described their perception of how it could be contextualised. The most common elements were the choice of music, devices for presenting the music, and time frame.

For the choice of music, the participants suggested that the preference of the patients should be considered, and if the music was to be played in the general ward for everyone, it should not be religion-specific, it should be varied because of the different age groups, and it should be slow music played at a lower volume.

“...the only way I feel it can be beneficial may be if there is a way they can put sound system in the wards and they may not...when they are playing it will not be too high.... If it is low, cool at least, everybody will be enjoying it....Maybe when they play religious, play highlife, play pop, but considering what I feel again is when they look at the ages of the people in that ward so they will know what type of music that will be beneficial to them...do you understand what I am saying...” (Participant 5).

The participants recommended the use of either portable music playing devices for individual patients or playing the music on audio-visual devices placed at a conspicuous location in the ward.

“...so that's what I don't know it could be introduced to the ward but I know that it could be introduced to each patient...maybe through...you know, we have all this things what is it called now...MP3s...yeah” (Participant 8).

“...there is supposed to be some music here, or television, someone will be watching....Like that place, it's as if there has been a television there, they can buy something there in case, so that the patients can watch little by little” (Participant 4).

Finally, the participants perceived that MT should encompass holistic care that would commence with patient education before surgery to provide relief for anxiety and depression and introduce patients to what to expect after their surgery, including pain management and music therapy.

“The only thing I noticed from the inception to the...of my coming into the hospital...if not that I'm in the profession...that I have little idea of what is going on, psychologically, we are not prepared. Psychologically, you know for you to sit someone down, someone that will lose part of the body, the breast, psychologically, no psychological preparation. Past experience, going to Google, that is what...that is what has kept me going up till now. So I think they should inculcate that in the management. Feel the patient relaxed psychologically” (Participant 14).

4. Discussion
The analysis of the interviews revealed that the participants experienced severe pain in the immediate postoperative period. However, the pain declined over time. This was similar to the findings in previous studies [14]. The participants attributed the decline in pain severity to the use of either a mild opioid or non-opioid analgesia, or a combination of non-opioid analgesia. This finding was not consistent with the recommendation for the use of multimodal analgesia, which combines different analgesia, administration techniques, and non-pharmacological interventions to target various areas of the pain pathway for optimum pain relief [8, 9, 24].

The results further indicated that although the participants listened to music as a part of their daily life, they were not aware that music could be used as a therapy, especially for pain management. This finding suggests that while the participants were preparing for surgery, options for non-pharmacological interventions for pain management were not discussed or adopted by the healthcare providers. This finding was inconsistent with the recommendation that pain management education and a discussion of the available pain management options, including non-pharmacological interventions, should be discussed with patients before their surgery [8].

Despite the participants’ poor knowledge of the use of music as a therapy for pain management, they expressed huge support and a willingness for its introduction to patients undergoing surgery. This willingness may have been because music was already part of their lifestyle [25]. Although the participants expressed a willingness to use music for pain management, it was only based on the condition that the music be tailored to their preference and commenced before surgery to relieve anxiety; slow and not too loud, delivered via a portable listening device; and considers the language, religion, and meaningfulness. Why the participants requested that those elements should be considered could have been because there are three major ethnic groups (i.e., Igbo, Hausa, and Yoruba) in Nigeria [20], and each has a unique tradition and myths and legends about the origins of music [21–23]. It could also have been because cultural music used for pain management after surgery in Nigeria generally has lyrics that encourage perseverance and long-suffering through pain to achieve a desired or favorable outcome [22].

Aside from using culturally sensitive MT for acute postoperative pain management, the participants explained that holistic care, which included psychological and spiritual support, preoperative pain management education, and the management of preoperative anxiety and depression, was still a missing link that needed to be connected. According to Aliche and colleagues [26], the provision of accurate information to patients before their surgery is one of the ways to minimize preoperative anxiety. Since preoperative anxiety has been reported by previous studies to significantly increase pain after mastectomy [27, 28], MT could be developed such that it provides holistic care by including patient pain management education, psychological and spiritual support before surgery, and listening to culturally sensitive music that patients preferred and pre-selected after surgery for pain management.

5. Conclusion
In Nigeria, music is an aspect of culture that is inevitable for all the major ethnic groups. The music that Nigerian women considered suitable for pain management was such that took into account their language and religion and that had deep meaning. This type of music, when applied for pain management after mastectomy in the clinical setting, had the potential of reducing the intensity of pain and improving the overall patient outcome. Therefore, healthcare providers in Nigeria need to reduce their reliance on unimodal pain management strategies that favor analgesia only.

6. Relevance To Clinical Practice

This study will help illuminate the culturally sensitive elements of MT with regard to acute postoperative pain management among Nigerian women after mastectomy. Furthermore, it will help to understand how MT can be used clinically for postoperative pain management in Nigeria. Similarly, this study will improve the knowledge of healthcare providers about the core needs of patients undergoing mastectomy.

Declarations

Funding: The authors did not receive support from any organization for the submitted work.

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Data Availability statement: All data generated or analyzed during this study are included in this published article

Code availability: Not applicable.

Authors contributions

TOLA, Yetunde Oluwafunmilayo: Conceptualization; methodology; data collection, data analysis; writing, original draft preparation; writing, review and editing; and approval of manuscript for publication

ILOBA, Njokanma: Conceptualization, methodology; data collection; ethics approval from study setting; review; and approval of manuscript for publication.

CHOW, Ka Ming: Conceptualization; methodology; writing, original draft preparation; writing, review and editing; validation of formal analysis; supervision; and approval of manuscript for publication.

Ethics approval

This study was conducted in line with the principles of the Declaration of Helsinki. Ethical approval was obtained from the Survey and Behavioral Ethics Committee of the Chinese University of Hong Kong (SBRE-19-777) and from the Research and Ethics Committee of the Lagos State University Teaching Hospital, Nigeria (LREC/06/10/140).
Consent to participate: The participants received a research information sheet to help them understand key information about the research and provided form. Verbal and written consent informed consent was obtained from each participants included in the study.

Consent for publication: Not applicable.

References

1. Anagnostopoulos F (2014) Mastectomy. Encycl Qual Life Well-Being Res. Well-Being Res 141:1077–1079. https://doi.org/10.1007/978-94-007-0753-5
2. Fecho K, Miller NR, Merritt SA et al (2009) Acute and persistent postoperative pain after breast surgery. Pain Med 10:708–715. https://doi.org/10.1111/j.1526-4637.2009.00611.x
3. Gan TJ (2017) Poorly controlled postoperative pain: Prevalence, consequences, and prevention. J Pain Res 10:2287–2298
4. Kulkarni AR, Pusic AL, Hamill JB et al (2017) Factors associated with acute postoperative pain following breast reconstruction. JPRAS Open 11:1–13. https://doi.org/10.1016/j.jptra.2016.08.005
5. Evans H (2019) Preoperative relaxation techniques for breast cancer patients undergoing breast-altering surgery: A systematic review. Iris J Nurs Care 1:. https://doi.org/10.33552/ijnc.2019.01.000512
6. Mędrzycka-Dąbrowska W, Dąbrowski S, Gutysz-Wojnicka A et al (2018) Nurses’ knowledge and barriers regarding pain management. J Perianesthesia Nurs 33:715–726. https://doi.org/10.1016/j.jopan.2017.03.005
7. Chetty S, Frohlich E, Penfold P et al (2016) Acute pain guidelines. SA Pharm J 83:15–33
8. Chou R, Gordon DB, De Leon-Casasola OA et al (2016) Management of postoperative pain: A clinical practice guideline from the American pain society, the American society of regional anesthesia and pain medicine, and the American society of anesthesiologists’ committee on regional anesthesia, executive commi. J Pain 17:131–157. https://doi.org/10.1016/j.jpain.2015.12.008
9. Schug SA, Palmer GM, Scott DA et al (2015) Acute pain management: Scientific evidence, fourth edition, 2015. Med J Aust 204
10. Aluede CO, Ibekwe EU (2011) (Re) investigating man, drum and music in healing. Stud Ethno-Medicine 5:125–131. https://doi.org/10.1080/09735070.2011.11886399
11. Li XM, Yan H, Zhou KN et al (2011) Effects of music therapy on pain among female breast cancer patients after radical mastectomy: Results from a randomized controlled trial. Breast Cancer Res Treat 128:411–419. https://doi.org/10.1007/s10549-011-1533-z
12. Zhang JM, Wang P, Yao JX et al (2012) Music interventions for psychological and physical outcomes in cancer: A systematic review and meta-analysis. Support Care Cancer 20:3043–3053
13. Aluede C (2012) Music as Edae: The implications for music therapy in Nigeria. UJAH Unizik J Arts Humanit 13:. https://doi.org/10.4314/ujah.v13i1.5
14. Binns-Turner PG, Wilson LL, Pryor ER et al (2011) Perioperative music and its effects on anxiety, hemodynamics, and pain in women undergoing mastectomy. AANA J 79:21–28

15. Liu Y, Petrini MA (2015) Effects of music therapy on pain, anxiety, and vital signs in patients after thoracic surgery. Complement Ther Med 23:714–718. https://doi.org/10.1016/j.ctim.2015.08.002

16. Soo MS, Jarosz JA, Wren AA et al (2016) Imaging-guided core-needle breast biopsy: Impact of meditation and music interventions on patient anxiety, pain, and fatigue. J Am Coll Radiol 13:526–534. https://doi.org/10.1016/j.jacr.2015.12.004

17. Palmer JB, Lane D, Mayo D et al (2015) Effects of music therapy on anesthesia requirements and anxiety in women undergoing ambulatory breast surgery for cancer diagnosis and treatment: A randomized controlled trial. J Clin Oncol 33:3162–3168. https://doi.org/10.1200/JCO.2014.59.6049

18. Zhou K, Li X, Li J et al (2015) A clinical randomized controlled trial of music therapy and progressive muscle relaxation training in female breast cancer patients after radical mastectomy: Results on depression, anxiety and length of hospital stay. Eur J Oncol Nurs 19:54–59. https://doi.org/10.1016/j.ejon.2014.07.010

19. Adeniji AA, Dawodu OO, Habeebu MY et al (2020) Distribution of Breast Cancer Subtypes Among Nigerian Women and Correlation to the Risk Factors and Clinicopathological Characteristics. World J Oncol 11:165–172. https://doi.org/10.14740/wjon1303

20. Numan A (2013) Prediction of Stature from Hand Anthropometry: A Comparative Study in the Three Major Ethnic Groups in Nigeria. Br J Med Med Res 3:1062–1073. https://doi.org/10.9734/bjmmr/2013/1932

21. Aluede CO (2008) View of Music and Dance Therapy in Nigeria: The Task before the Potential Nigerian Music Therapists in the Twenty First Century | Voices: A World Forum for Music Therapy. https://voices.no/index.php/voices/article/view/1793/1554. Accessed 6 Apr 2020

22. Aluede CO (2017) Music Therapy in Traditional African Societies: Origin, Basis and Application in Nigeria. J Hum Ecol 20:31–35. https://doi.org/10.1080/09709274.2006.11905898

23. Kayode K (2018) The concept, training and practice of music therapy in nigeria: anthony mereni’s contribution. Academia 4:1–20

24. Macintyre PE, Schug SA (2014) Acute pain management: A practical Guide. CRC Press

25. Darnley-Smith R, Patey HM (2011) Music therapy. SAGE Publications Ltd

26. Aliche JC, Ifeagwazi CM, Chukwuorji JBC, Eze JE (2020) Roles of Religious Commitment, Emotion Regulation and Social Support in Preoperative Anxiety. J Relig Health 59:905–919. https://doi.org/10.1007/s10943-018-0693-0

27. Schreiber KL, Kehlet H, Belfer I, Edwards RR (2014) Predicting, preventing and managing persistent pain after breast cancer surgery: The importance of psychosocial factors. Pain Manag 4:445–459

28. Best JT, Musgrave B, Pratt K et al (2018) The Impact of Scripted Pain Education on Patient Satisfaction in Outpatient Abdominal Surgery Patients. J PeriAnesthesia Nurs 33:453–460. https://doi.org/10.1016/j.jopan.2016.02.014
### Tables

#### Table 1. Demographic characteristics of participants (n = 20)

| Demographics                                      | Frequency (n) | Percentage (%) |
|---------------------------------------------------|---------------|----------------|
| Age, mean(SD);                                    | 52.0 (13.9)   |                |
| Time since diagnosis, mean(SD)                    | 10 (10.17)    |                |
| Time since mastectomy*, mean(SD)                  | 1.70 ± .87    |                |
| **Marital status**                                |               |                |
| Married                                           | 15            | 75.0           |
| Single                                            | 1             | 5.0            |
| Widowed                                           | 4             | 20.0           |
| **Religion**                                      |               |                |
| Christianity                                      | 19            | 95.0           |
| Islam                                             | 1             | 5.0            |
| **Ethnicity**                                     |               |                |
| Yoruba                                            | 16            | 80.0           |
| Igbo                                              | 2             | 10.0           |
| Edo                                               | 2             | 10.0           |
| **Educational level**                             |               |                |
| Primary level                                     | 1             | 5.0            |
| Secondary                                         | 4             | 20.0           |
| Tertiary                                          | 15            | 75.0           |
| **Employment status**                             |               |                |
| Student                                           | 1             | 5.0            |
| Unemployed                                        | 2             | 10.0           |
| Self-employed                                     | 8             | 40.0           |
| Employed                                          | 3             | 15.0           |
| Retired                                           | 6             | 30.0           |
| **Stage of breast cancer**                        |               |                |
| Stage I                                           | 4             | 20.0           |
| Stage II                                          | 6             | 30.0           |
| Stage III                                         | 9             | 45.0           |
| Stage IV                                          | 1             | 5.0            |

*months; * weeks

#### Table 2. Themes and sub-themes
| Themes                                           | Sub-themes                                                                 |
|-------------------------------------------------|-----------------------------------------------------------------------------|
| Pain experienced after mastectomy               | Severity of pain experienced within the first 72 hours after surgery       |
|                                                 | Pain management strategies implemented by healthcare providers              |
| Culture and music                               | Music as a lifestyle                                                        |
|                                                 | Elements of culture that influence music                                    |
|                                                 | Choice of music and culture                                                 |
| Perception of music for postoperative pain       | Knowledge of and willingness to adopt music for pain management            |
| management after mastectomy                      | Preferences and contextualising music therapy                              |