SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

To investigate the impact of various types of background music on patients' perceptions and anxiety in a healthcare setting.

Background music's impact on patients waiting in surgery and radiology clinics

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Key Concepts/Context

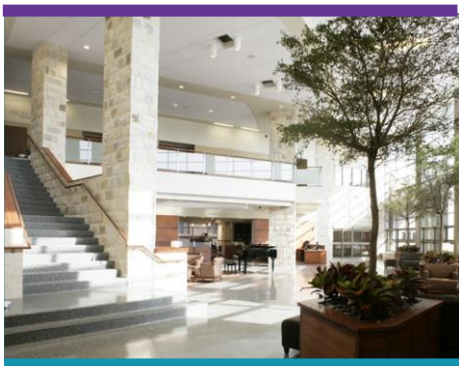
The use of background music in healthcare environments has steadily increased over the last 20 years; previous research indicates it may help reduce patient anxiety and improve perceptions of the healthcare environment. The use of background music as an intervention in waiting rooms, specifically, has been unexplored. This study suggests that choices of background music should consider factors such as the time of day, the clinical atmosphere, and the cultural background of patient populations.

Methods

This study was single-blind and randomized, so while random participants agreed to complete surveys, they were not aware that the use of background music in the waiting areas was the intervention being studied.

This study took place in the two separate waiting areas of one hospital's surgery and radiology clinics. A total of 303 participants were recruited; this sample size was determined using G* Power Software. 150 responses in total were gathered from the surgery clinic, and 153 responses came from the radiology clinic. 48 participants from the surgery clinic heard "lo-fi" or relaxed, rhythmic instrumental electronic music, while 50 participants heard Western classical music such as Mozart, Bach, or Beethoven. In the radiology clinic, 52 participants heard lo-fi music while 49 heard Western classical. For both clinics, there was a third group of 52 participants who heard no music.

All participants were patients waiting to see their respective medical professionals. Participants had to be at least 18 years of age. Anyone experiencing severe pain, hearing impairments, or who were using mobile devices with headphones for entertainment while waiting were excluded.



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A pilot study helped the authors determine that a volume of 56-60dB from the overhead speakers playing music was considered comfortable for both patients and staff.

For the main study, data were collected over a seven-month period on alternating weekdays from 10 a.m. to 1 p.m., which was the busiest time for both clinics. All participants waited for at least 20 minutes. Following their healthcare visit, the participants completed a four-page questionnaire which included a 6-item State Trait Anxiety Inventory (STAI-6), space to gather demographic information, and five questions concerning satisfaction using a 5-point Likert-type scale.

Findings

The STAI-6 scoring chart indicated that participants from the surgery clinic waiting room experienced high levels of anxiety while hearing classical or lo-fi music, while those who heard no music experienced moderate levels of anxiety. The differences reflected in their STAI scores were considered statistically significant: 49.93 for classical music, 48.13 for lo-fi music, and 39.03 for no music. Analysis of the surveys concerning participant perceptions of healthcare services (professionalism, care, courtesy, helpfulness, respect, and overall excellence) revealed that those who heard no music generally rated their experiences more positively. Additionally, those who heard no music responded more positively to questions about the hospital's fees, recommending the facility to their friends or family, and their waiting time.

For the radiology clinic, participants who heard classical music experienced high anxiety, while those who heard lo-fi music demonstrated moderate anxiety and those who heard no music indicated low levels of anxiety (STAI scores: 46.87, 41.67, and 35.38 respectively). Similarly to the surgery clinic, participants who heard no music also rated their overall perceptions of the services they received more positively. Participants who heard no music were also the most willing to recommend the facility to their family and friends, and were the most satisfied with their waiting times; conversely, those who heard classical music rated the lowest on both of these questions.

Limitations

This study used specific pieces of classical music and modern electronic music as interventions; other pieces of music from these same genres may have had different effects on the participants. Participants were never directly questioned about the music itself; while this was intentional as part of the single-blind process, it may have revealed whether or not the music itself in any way contributed to anxiety levels.

Design Implications

This study implies that the use of Western classical music or even modern electronic music as relaxing background interventions may be counterintuitive in spaces where cultural or other contextual reactions to these sounds may vary; in these cases, healthcare designers might consider variables such as cultural and clinical contexts as well as sound system volume and acoustics when implementing musical interventions within waiting areas.