Study on the Influence of Ambient Music in Patients of Naturmed Clinic

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Abstract:
This research seeks to present the influence of the implementation of ambient music used in a medical establishment in the development of the different treatments that patients receive. Naturmed, located in the city of Guayaquil, is a recognized natural medicine service that was used for this study. The study consisted of surveying patients in order to analyze the perception of creating a certain musical environment or soundscape as a tool to provide relaxation and comfort before and during medical intervention. From the results, we will analyze opportunities for actions to be taken, which must improve and in some cases change, in terms of the environment given to patients through high quality ambient music, as well as create an actual base of information that provides openness to constructive debate and reflection.

Keywords: ambient music, soundscape, treatments, environment, patients.

Introduction:
The following research is an analysis of the positive influence ambient music has towards patients of the natural medicinal services company, Naturmed, which includes patients’ level of relaxation and predisposition.

The objective of this study is to learn the real positive aspects generated by an installation of high quality equipment and sound to create the soundscape needed during the treatment process of patients during their visit to Naturmed.

Mendes (2001), said that through different investigations in different health areas such as relaxation and diminishing of anxiety, music alleviates pain, and has numerous benefits. The service that Naturmed provides makes music influence in several aspects, optimizing the quality of the environment, and reducing the stress of the people involved.

Ambient music is a service given by a specialized service that consists of a sound installation that through electronic means plays a programmed musical repertoire which was chosen with a determined function. A functionality that for its operability considers the characteristics of the physical space intervened, and those of the human transit passing by.

Currently, many national and international companies are implementing ambient music in their establishments as a new method of customer satisfaction. Therefore, the interest arose to study the influence of this new tool to demonstrate the positive results of this involvement in the consumers’ well-being.

Method and Materials:

Background:
The Greek term logos means word and also means, sound. In ancient times, people listened to David’s, Orpheus’ and Apollo's sacred lyre, intoned the mystic Sufi poems of Rumi, or looked for the legendary music of the spheres yearning to be healed. In the ancient world, music was a mysterious and potent instrument for harmonizing mind and body (Campbell, 1998).
In the XIX century, music was used in health centers as a recreational resource for psychiatric patients. During this period, it was perceived that compasses could exert a positive or negative force, concluding that soft melodies appease excited patients.

The subconscious receives the compasses and creates a sensation of well-being, discarding the uneasiness of the spirit (Ortiz, 1998).

“The use of music as a therapeutic resource began to be felt at the beginning of the 20th century, and in 1941, the National Music Therapy Foundation was created with the aim of expanding studies in this area” (De Queiroz, 2000). However, musical therapeutic use became relevant and had an impact at the end of the century.

During the evolution of the world until now, in traditional countries, there is proof that the medicine of the body and mind are connected with music. The treatments of shamans and healers are directly linked to music and sounds.

According to Gonzalez (2003), musical language is mentioned, making reference that it communicates sensations, which can be called emotions; and for some this function, is its functionality. From that, ambient music is suggested as a method to influence the state of patients during some natural medical treatment.

**Musical Psychology:**

Orozco (2015), indicates that, from a psychological point of view, music, is a set of stimuli that provokes sensations in those who listen to it. In Table 1, the basic ways of using music are mentioned.

**Table 1:**

**Basic ways of using music:**

1. To get a different mood from the one you feel at a certain time.
2. To analyze its structure or sound quality of the instruments involved.
3. As accompaniment during different situations such as work, studying, driving, at parties and social gatherings.

**Source:** (Chamorro-Premuzic & Furnham, 2007)

Music is sound, sound is vibration, vibration is energy transmitted in waves that we receive through our ear towards our brain. These vibrations can be: pleasant, unpleasant, exciting, calming, etc. Nowadays, it is scientifically confirmed that the ear is the most qualified brain sensory stimulus. “Of these, 20% correspond to sight, 30% correspond to taste, smell and touch, and 50% correspond to the ear, which awakens and promotes the brain, in addition to protecting it against deterioration” (Lacárcel Moreno, 2003).

Observing the theoretical framework of musical psychology in terms of emotions, people are considered as a set of body, mind, emotion, and spirit.

Music reinforces psychological and emotional development contributing to the precise balance, to acquire an appropriate level of well-being and happiness. “It can transmit different moods and emotions that release the emotional, affective, and intellectual hearing function, leading to a re-harmonization of mood and feelings” (Mayer & Salovey, 1997).

A feedback mechanism is created, in which, your mood provokes an emotional expression that tends to enliven or maintain the state of mind; you should only pay attention to a musical sequence suitable to achieve a period of relaxation, and decrease anxiety, the respiratory curve and heart rate (Velamazán, 2013).

**What is a Ambient Music?**

Through principles of integration and resonance, ambient music, allows to purify the environment in which it is being played, greatly benefiting the development of different activities, in such a way, that the environment becomes a healthier place.

The objective of ambient music, is to calm the audience listening. It is played in stations, airports, hotels, department stores, in places where pain is predicted like consulting a dentist or tax adviser. A common feature of all these scenarios is that the public cannot escape the music (Giraldez, 2005).

By means of the rhythmic vibration, music allows to create a receptive state, through human sensory relaxation, especially in emotions, allowing the assimilation of the content transmitted by the music, or by any other element near it during musical hearing (Fregtman, 1988).

**Music equipment of high performance and fidelity:**

In creating a setting with ambient music, a series of components concerning sound and music should be considered.

The selection of the equipment, and its ideal performance, will allow to adjust the sound and to make the listener feel more comfortable and ready to take part in the treatment suggested by the establishment they are in.

Most negative reactions to ambient music are presented when the client perceives an unsuitable or
poor quality sound. To provide a sound that fulfills the function that the musical setting seeks, it is essential to correctly choose the speakers (Martinez, 2014). Table 2, lists the elements that should be taken into account.

**Table 2:**
**Elements to obtain a high quality musical ambience:**

<table>
<thead>
<tr>
<th>-Quality of speakers</th>
<th>They reproduce a wide range of frequencies, starting point necessary to adjust the sound most appropriate to each situation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Recommended types of speakers</td>
<td>The most used loudspeakers in the store are the built-in ceiling and fixed to the wall.</td>
</tr>
<tr>
<td>-Types of speakers to avoid</td>
<td>Mini chains, sound bars, amplified computer systems or even the loudspeakers of television sets or computers</td>
</tr>
<tr>
<td>-Number of speakers</td>
<td>The music should be as uniform as possible anywhere in the room to create a perfect sounds cape.</td>
</tr>
<tr>
<td>-Tones and frequencies</td>
<td>A good range of frequencies for a speaker could be from 120 Hz to 20.000Hz (or 20KHz).</td>
</tr>
<tr>
<td>-Speaker tracks</td>
<td>A speaker has one, two or three tracks depending on the number of speakers dedicated to playing a tone.</td>
</tr>
<tr>
<td>-Sensibility</td>
<td>The greater the sensitivity of a speaker, which is measured in decibels (db), the less power required to achieve the same sound pressure.</td>
</tr>
<tr>
<td>-Type of sound</td>
<td>Although similar in size and design, many speakers are designed for a particular use or for a type of music</td>
</tr>
</tbody>
</table>

**Source:** Elaborated by authors based on Martinez (2014).

**Company being researched:**

Naturmed was established with the approach of achieving the psychophysical well-being of people who come to this space, the care and prevention of their physical and aesthetic condition, through techniques of biological, homeopathic, and natural medicine.

The Mission of Naturmed is to be a natural biological medicine center that provides performance, strength, beauty, rest, and youth to its patients.

Its services are: biological medicine, biological products, hydro-colon therapy, serum therapy, and spa. They are based on excellence, teamwork, commitment, honesty, and respect, always oriented towards their patients.

Naturmed's facilities are located in Cdla. La Fae Av. Plaza DañinMz 41 Villa 9 (Naturmed, 2016).

**Method:**

The design of this research corresponds to the study of a random sample, giving rise to an explanatory analysis of the variables. Luvin & Rubin (2004) denominate population to "a set of elements that present a common characteristic"; within it, Medium (2014) indicates that there is a part of a selected population that can demonstrate the characteristics or generalities of the group to which it belongs, which is called a sample.

**Intervention Strategies:**

This research is within the category that resorts to the quantitative method, which allows a numerical analysis of data. Objectivity is used only to achieve knowledge, a comprehensive and controlled calculation is handled so that it can possess certainty.

In the first instance, a survey was carried out on the patients of the company studied, in order to know about their current level of perception and influence after the application of the musical system. A participation of 100 people was expected.

The survey consisted of 11 close-ended questions, which allow the study to be directed towards suggested answers, and adapted to our language and need based on the study conducted by Heartbeats International (2011).
It is necessary to emphasize that the technology used for the creation of the survey was the “google forms” application which allows working on a spreadsheet with the results for future analysis. Likewise, the statistical program chosen to prepare the tables was Minitab version 16.

**Results:**

**Survey Results:**

For this question, a scale was made ranging from 1 to 5, 1 being very negative, and 5 being very positive. With 45%, the survey respondents consider music to be positive. 31% indicated that music is moderately positive, and 17.4% think that music is very positive. In general, more than 90% of surveyed give a positive rating to music in their lives.

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The music that is heard in public spaces has a positive or negative effect on people. When music is appreciated by those who listen to it the results are the following: 42.9% revealed that they remain longer in the place, 22.9% pointed that they would recommend the place to other people, and 20% said that they would return to the place. The remaining 14.2% expressed that they would purchase more services from the place they are in.

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From the following table we can observe that 40% of surveyed people consider music being the hardest thing to not have daily. 25.7% surveyed said that it is most difficult to not have a phone for daily use. It is pertinent to highlight that people use their phones as a means to listen to music. 25.9% affirm that the necessary tool for daily use is the internet.

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74% of surveyed respondents expressed that they would return to a place or company that plays music they like. The remaining 26% manifested that they would not, they do not consider it as a determining factor.

It was investigated if the people who attend the clinic are affected by the music played during their stay and if this would cause them to leave the place. 62.85% of people commented that this fact would not cause them to depart from the clinic, while 37% of people say that if it can be reason to leave, it's probably because it is unpleasant for the person listening.

For people who visit the place, the most important thing is that the music being played has the right volume, as stated by 40% of the respondents, 22.9% stated that the music should match the profile of the clinic or the place where they are, 20% indicated that music should be popular and recognized on the radio. A lower percentage of 17% said that music should correspond to the taste of the consumer.

Twenty percent of respondents said that it is due to the very loud volume of music that the conversation is interrupted. 25.71% indicated that music is annoying or irritating. 54% of the people did not give an answer to this question.
Wrong music can make people stop attending the clinic, 40% of people would come less to where they are and the music is not pleasant. 25.85% say they would not return; 20% would choose to leave the place. 17.14% of those surveyed acknowledge that they would not recommend other people to visit the business.

The volume in which the music is played is good for 51.42%, 25.71% indicate that the volume is erratic, 11.42% of the respondents say that the volume is too high, and the same percentage are people who say that do not know or are indifferent to this fact.

60% of people say that the company chooses music to create a suitable environment, and a positive experience, however 25% think it is not, and 14% answered that they do not know if the company cares or not.

People rated how good the music playing on the premises is, and expressed the following: 23% of people barely listened to the music being played, or did not pay attention to it, 20% of respondents said they have heard the music being played, this percentage is given to people who have noticed the artist or the song track that is being played. Twenty percent of the respondents rated their experience with the clinic in relation to the music being played. 14% of people responded that they do not know, admitting that they do not qualify the fact that the music being played is good or not. A minimum 3% manifested that they were not aware music was being played.

### Analysis of Overall Results:

Forty percent of the respondents determined that one of the most difficult tools to eliminate from their daily life is music, a result that helps to guide the verification of the hypothesis of this research. The importance of music in people has different connotations, varying from individual to individual. For this study, a percentage of respondents indicated...
that music is positive in their lives, surpassing 45% of the sample. The effect that music has on a person can make them react in a certain way, the survey revealed that 43% of people remain in the clinic performing some kind of treatment thanks to the musical environment that exists in it. It is important to mention that 74% of patients would return to visit the facilities because the music played is pleasing to the point of providing comfort and relaxation. Forty percent of respondents said that the volume of music in the environment should be adequate. Twenty-three percent pointed out that another significant aspect in musical reproduction should be agreeing on what is heard, with the profile of the clinic, that is, that music programming should seek affinity and relationship with the concept of the clinic. There is a considerable 63% of respondents that would leave the facilities if they do not feel comfortable with the musical environment. The remaining 37% would not leave the clinic. This group did not pay much attention to the music or sound played during their visit to the establishment. Referring to the argument that Naturmed opted for music to create a suitable environment, 60% agreed with this statement, while 25% disagreed. As a transcendental point within this research it's necessary to indicate that the positive reaction to the musical environment provided by the clinic Naturmed is superior, according to the response of more than half of the respondents, who indicate that the environment is good and above all provides a pleasant experience.

**Conclusion and Recommendations:**

According to the objectives set out in the introduction, and in response to the analysis and research work carried out, it can be confirmed that the objectives were achieved. Based on the results of the present research, the following conclusions have been generated: It is common to relate music to the mood of people as it is associated with feelings and emotions. However, in this project, it was possible to demonstrate that ambient music can be a tool that creates a bond with the patient of the clinic during their visit, and additionally reinforces the feeling of relaxation and comfort, creating a more effective treatment for the patient. At the theoretical level, the beginnings and repercussions of music were understood, in the psychological field and in the conceptual framework of ambient music. We also briefly identified the importance of using high-performance and fidelity equipment to achieve the stated objectives. From these studies, it is determined that there is a need to promote the creation of suitable musical environments within establishments that offer health services. Based on the analysis of this research, it can be concluded that the clients of the clinic Nutrimed have very good predispositions and acceptance of ambient music, and at the same time it was demonstrated that there is a positive behavior from the influence of this stimulus. This project works as a base, from which new needs can be considered and new problems can be solved. This research is a first step in a work process, against which, if you continue to inquire about the problem, it is possible to generate new fields in which corporate communicators, organizational psychologists, and human resource experts can demonstrate how their profession can contribute to improving the quality of life of people.

**Bibliography:**


