The " Right" Music for the "Right" Situation

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A case study from the Music Medicine Unit, MGMC&RI

Mrs. X was referred to the Music Medicine Unit from the post-operative ward, for the complaints of agitation, aggression, and restlessness. She was administered a piece of music based on Rag Neelambari through the head-phones, for a period of 30 minutes. She calmed down after sometime, and reported that she felt peaceful and relaxed. The music administered was sedative in nature, and had a sustained melodic nature, lacking in strong rhythmic and percussive elements.

Helen Bonny (1986) has stated that "sedative music has an easy flowing melody, and a tempo similar to the resting heart beat. It is pleasing to the ear, not dissonant, and it has no major changes in pitch, dynamics, or rhythm. It supports its listeners. It makes no demands on them." According to her, people who are seriously ill need sedative music. Hence it is important for health professionals, when assessing a client's musical preferences, to take into consideration the client's current health status also.

How to assess the musical preferences of the patient?

The initial step consists of reviewing their "musical listening" using relevant questionnaires (Le Navenec & Slaughter, 2001). This is followed by asking them to describe their responses to a particular piece of music.

Aldridge (1996) warns for the quantitative approach in music research. He holds that we should be careful not to organize nature according to concepts imposed on it and demonstrates the need for a more phenomenological, holistic understanding of musical experiences through qualitative research.

Factors that affect one's musical preferences:

1) Health Status: According to Helen Bonny, one's preference for stimulating music may change when ill. She emphasizes the need for sedative music at such times. Furthermore, depending on one's hearing status, certain types of music (e.g., with high pitches) may be a source of discomfort.

2) Alertness or fatigue level: Just as when we are ill, we prefer sedative music, so too, when we are very tired, the sounds of silence may be preferred.

3) Mood at the time of listening: The iso-moodic principle (Katsh and Merle- Fishman, 1985) implies that we need to match the music to the current mood we are in and that a person's mood state may be altered on exposure to music that evokes or tends to evoke a similar mood state. The iso-moodic principle of music therapy assumes that individuals attend to music selectively that is relatively congruent with their current mood state. If we wish to change our mood, we need to change the selection of music gradually by choosing music that evokes emotional responses in an adjoining category of Hevner's Mood Wheel(1937). Fig.1 shows the moods depicted in Hevner's Mood Wheel.

4) Age: Musical preferences of the elderly has been extensively studied (Moore et.al., 1992). Pittigio (2000) suggests that music from childhood and adolescence may be helpful for older people with dementia during reminiscence group sessions because long-term memory is often preserved.

5) Socio-Cultural and environmental characteristics: Examples in this category include how familiar the music is to the listener, cultural and ethnic background, and related contextual features (e.g., whom you are with, the physical environment in which you are listening to the music, etc.)

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6) Musical background

7) How one uses music in everyday life: Compensatory: e.g., diversion, relaxation; emotional: e.g., whether music supports the expression of emotions or moods; background: e.g., background music stimulates some people while working and it fills the silence when one does not feel at ease with others.

8) Availability of various categories of preferred music.

The above facts underscore the importance of assessing the musical preferences of the persons for whom you are administering music. According to Scartelli, Lloyd (1987) and other investigators in the field of psycho-neuro-immunology (PNI), there is a constant reciprocal communication between the mind and body which is accomplished via the secretion of various types of neuro-transmitters that are triggered in an individual by "environmental ,emotional, physical, social, and even spiritual changes". These changes in turn affect the functioning of one's autonomic nervous system, endocrine, and immune systems.

Exposure to carefully selected music produces the following effects:1) Positive physiological outcomes; 2) Effects on cognitive and psychological functioning; 3) Social and spiritual well-being of people, and 4) The emotional sphere. Scartelli (1989) implies that this emotional sphere is"the prime target of music". Hevner concluded from her study that "the perception of emotion in music was most influenced by the tempo, modality, and pitch level of the music, and less by the harmony, rhythm, and melodic direction".

The Hevner Mood Wheel consists of 8 clusters of related emotions organized in a counter clockwise direction along a solemn-exalting continuum, and has been used extensively in research on music and emotions (Bonny & Savary,1973; Gabrielsson & Lindstrom,2001). The moods within each cluster of the Hevner Wheel are closely related (sad, mournful, gloomy) and adjacent clusters are moderately related (cluster 6-happy and cluster 7-excited). Hence mood transitions between adjacent groups are made without abrupt changes. Diametrically opposite clusters reflect opposite moods that are more distantly related (cluster 8-vigorous, and cluster 4-serene). Hevner also includes descriptive qualities of moods and not just distinct emotions (for example, heavy and dark are included in the same cluster as depressed, melancholy, and mournful).

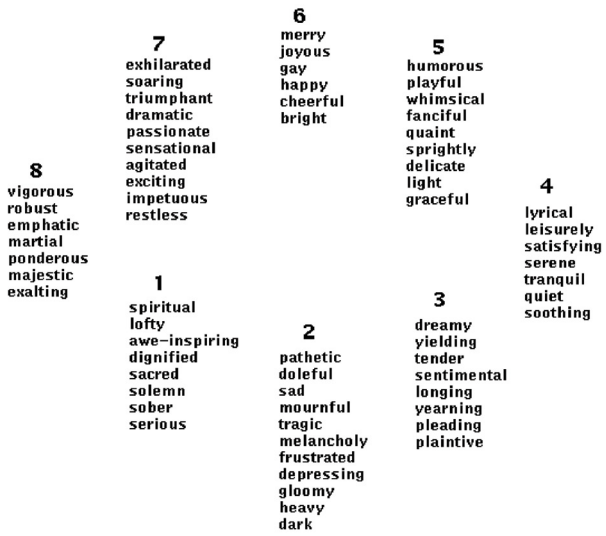

Fig 1 :The Hevner Mood Wheel (Arrangement of adjectives for recording the mood effect of music)

Kate Hevener: "An experimental study of affective value of sounds and poetry"

Eight different groups each with differences within. Different responses are elicited when participants listen to the same music excerpt.

Such aesthetic verbal descriptors can be useful in the expression and understanding of emotions, particularly as they arise in musical experiences.

How to use the Mood wheel?

The participants are asked to describe what they think about the music that is played. They are shown the adjectives in the various groups, and advised to circle the adjectives that really reflect how the music makes them feel, and to leave all of the adjectives blank if the music did not affect them at all. They listen to a musical selection, then check the mood adjective group that they feel most corresponds to the mood of the music. The Mood Wheel essentially asks listeners to attribute emotional affect in relation to the musical pieces that they are listening to. At a subconscious level a process of identification occurs to the extent that one's moods may, by degrees, be modified.

Variations in certain musical properties, including tempo and dynamic intensity, encourage or reproduce variations in an individual's mood state. At its most potent, the vectoring power of music is such that mood states may actually vary, not simply by degrees across the same mood state, but also across altogether different mood states, from one

affective pole (anger) to its opposite (joy), for instance.

Merritt et al.,(1996) indicate that if one is feeling irritable, hyper activated, or edgy, the music therapist starts with music that is not too quiet so that the listener may transfer some of his or her anxiety over to the music (the transference effect, in which individuals in therapy often transfer feelings of anger about others to the psycho therapist). If a person is feeling depressed, then a quiet piece of music would be played at a slow tempo. If he or she is feeling joyful or wants to celebrate, then a melody based on Rag Hamsadvani is recommended (in the case of Indian Music therapy, which has been tested and tried on several participants). If Western Music is preferred, Vivaldi's Four Sessions can be used. If a person is feeling angry, a melody based on Rag Bageshree can be used for Indian Music lovers, or Mozart's Eine Kleine Nachtmusik or the first or third movement of his symphony No.41 in C can be used.

But a distinction has to be made between mood and emotion. In music psychology, both emotion and mood have been used to refer to the affective effects of music, but emotion seems to be more popular. Researchers tend to choose mood over emotion. In addition, existing music repositories also use mood rather than emotion as a metadata type for organizing music. The music psychologists focus on human's responses, the latter focus on music. It is human who has emotion. Music does not have emotion, but it can carry a certain mood. Therefore, Hevner's methodology adopts the term music mood rather than emotion.

What We Know about Music Mood:

1. There does exist mood effect in music. It is also agreed that it seems natural for listeners to attach mood labels to music pieces

2. Not all moods are equally likely to be aroused by listening to music. In a study conducted by Schoen and Gatewood (1927), human subjects were asked to choose from a pre-selected list of mood terms to describe their feelings while listening to 589 music pieces. Among the presented moods, sadness, joy, rest, love, and longing were among the most frequently reported while disgust and irritation were the least frequent ones.

3. There do exist uniform mood effects among different people. Sloboda and Juslin (2001) summarized that listeners are often consistent in their judgment about the emotional expression of music. Early experiments by Schoen and Gatewood (1927) have shown that "the moods induced by each (music) selection, or the same class of selection, as reported by the large majority of our hearers, are strikingly similar in type". Such consistency is an important ground for developing and evaluating music mood classification techniques.

4. Not all types of moods have the same level of agreement among listeners. Schoen and Gatewood ranked joy, amusement, sadness, stirring, rest and love as the most consistent moods while disgust, irritation and dignity were of the lowest consistency. The implication for researchers is that some mood categories would be harder to classify than others.

5. There is some correspondence between listeners' judgments on mood and musical parameters such as tempo, dynamics, rhythm, timbre, articulation, pitch, mode, tone attacks and harmony (Sloboda and Juslin (2001). Early experiments showed that the most important music element for excitement was swift tempo; modality was important for sadness and happiness but useless for excitement and calm; and melody played a very small part in producing a given affective state (Capurso et. al.,1952). Schoen and Gatewood pointed out the mood of amusement largely depended upon vocal music: "humorous description, ridiculous words, peculiarities of voice and manner are the most striking means of amusing people through music". Such correspondence between music mood and musical parameters has very important implications for designing and developing music mood classification algorithms.

Perhaps no one, be he a music expert or casual listener, would deny the fact that music and mood can never be separated. Some music may not describe a story, but all music must express, strongly or softly, a certain emotion or a mixture of emotions. In consequence, music listeners often experience some sort of affective responses. Just as Juslin and Sloboda [15] stated :

"Some sort of emotional experience is probably the main reason behind most people's engagement with music. Emotional aspects of music should thus be at the very heart of musical science."

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