

# Journal of MUSIC THERAPY

## Editorial Announcements

**ARTICLES.** Original articles may be either descriptive or statistical, and should bring something new to the field of music therapy. Short, to the point writings are preferred.

**MATERIALS.** Brief reviews of materials pertinent to music therapy will be considered for this section.

**BOOK REVIEWS.** Competently written reviews of books important to music therapy will be used.

**JOB OPPORTUNITIES.** Each notice of a position will be printed once. It must be submitted a month before the desired publication date. The same notice may be sent in for succeeding issues.

**PROFESSIONAL NEWS.** Changes of position, promotions, and similar news will be accepted for publication in this section.

**YOU DON'T SAY!** is for letters with questions or criticisms concerning articles which have appeared in the *Journal of Music Therapy*. "Good taste" is a requisite for publication.

**EDITORIALS.** Guest editorials accepted and published by invitation only.

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## The Use of Music in Psychedelic (LSD) Psychotherapy

HELEN L. BONNY AND WALTER N. PAHNKE

In our ever-shrinking world, music listening of the future may of necessity be less a matter of personal choice than of predetermined selection. What, then, should our music be? What knowledge has man acquired on the efficacy of certain sounds for certain human conditions? Is this knowledge adequate for the man of the future who, made more sensitive to his inner involvements, may require for the sake of his own health and happiness an auditory environment which mirrors and implements his deepest needs? It is paramount that every effort be made to understand the nature of these needs and how they may be served by music.

Because of the all-pervasive qualities of music, statements about its specific use can best be accepted in the light of empirical evidence. An example is the use of music in conjunction with ingestion of drugs in primitive cultures (Nettl, 1956). A recent return to similar use has occurred in the United States culture with the introduction of psychedelic drugs and, more particularly, as the use of these drugs relates to therapeutic procedures.

The group of research scientists at the Maryland Psychiatric Research Center (MPRC) who work with LSD and other psychedelic drugs as agents of therapeutic intervention for patients with alcoholism, narcotic addiction and psychological distress associated with terminal cancer employ a specific type of drug therapy called psychedelic peak psychotherapy (Pahnke et al, 1970). "Psychedelic peak" refers to the type of transcendental or cosmic experience that can occur during the session, and "psychotherapy" refers to the human interaction that is prerequisite to personal growth and session preparation.

The psychedelic session is only one element of the total treat-

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The late Walter N. Pahnke, MD, PhD, was Director of Clinical Sciences at the Maryland Psychiatric Research Center at the time this work was in progress.

The work described in this paper was done at Maryland Psychiatric Research Center.

ment milieu. The patient undergoes a screening procedure of psychiatric interviews and psychological testing before he is accepted for treatment. Then, prior to the actual administration of the drug, he participates in from 10 to 20 hours of intensive psychotherapy. After the drug session, he receives as many hours of therapy as are necessary for the integration of insights gained, and also takes a battery of psychological tests.

The nature and outcome of a drug session have been found to depend upon three basic variables: drug dosage, set and setting. Music appears to be involved significantly in the crucial extra-drug variables of both set and setting. "Set" refers to factors within the patient, such as personality structure, life history, expectations, preparation, ability to trust and relinquish control, and aesthetic appreciation of music and art. "Setting" refers to factors outside the individual, such as the physical environment in which the drug is administered, the psychological and emotional atmosphere to which the patient is exposed, and the type, quality and mood of the presented music. The music therapist, often present as one of the therapists during the drug session, has met the patient during at least some of the therapy hours, has come to know his musical history and preferences and has played for him several recorded selections that will be used in his drug session. The provision of a therapist of each sex to be in attendance during the psychedelic session provides an available range of male-female roles which may constitute an important psychodynamic variable during the experience.

The team of therapists at MPRC have experimented with use of music in more than 600 drug sessions during a period of several years and agree that music is a very effective stimulus and complement to drug action. A recent study by Gaston and Eagle (1970) on the function of music in LSD therapy concluded that the presence of music is much preferable to its absence as rated by patient preference and treatment results. Let us consider first why music is effective, and second, what function it serves in the psychedelic drug session.

### WAYS IN WHICH MUSIC COMPLEMENTS THERAPEUTIC OBJECTIVES

Music complements the therapeutic objectives in five inter-related ways: 1) by helping the patient relinquish usual controls

and enter more fully into his inner world of experience; 2) by facilitating the release of intense emotionality; 3) by contributing toward a peak experience; 4) by providing continuity in an experience of timelessness; 5) by directing and structuring the experience.

1. *By Helping the Patient Relinquish Usual Controls and Enter More Fully into His Inner World of Experience*

The expansion of consciousness that is usually intrinsic to psychedelic drug experiences allows for increased sensitivity to all stimuli. Stimulus bombardment can occur, evoking a sense of confusion and dissimulation of affect, and interfering with the desired focus of attention on deeper matters of the psyche. It has been demonstrated that musical stimuli can effect a narrowing of attention and a heightening of concentration on the over-all range of stimulations (Colbert, 1963). Aesthetic experiences in which visual imagery is an integral part of the feeling state are often predominant. Internal visual experience is made more keen by limiting external vision through the use of eyeshades. Kinesthetic stimuli are reduced by providing a relaxed posture on a couch. The subject can then focus on auditory stimuli through the use of stereophonic earphones which bring musical sound into internal experiencing in a powerful and persuasive manner. However, the input of music does not detract from other sensory experiences if care is taken in choosing the music; rather, it often facilitates that which is taking place internally.

The following examples quoted from reports of psychedelic drug sessions are indicative of the effectiveness of music as a guide and release mechanism:

- Ex. 1. As I allowed my body to move with the music I could feel myself joining force, having a feeling of an elemental animal force.
- Ex. 2. The music swept me much more rapidly than I had anticipated. I was part of the mood beyond.
- Ex. 3. The music was like answering phrases between lower and higher voices—like the fight between the hold of your body on you, and letting loose, letting go to the experience. When the earphones were put on, the

music seemed to take over the entire inner field and I exclaimed, "I'm inside the music now."

2. *By Facilitating the Release of Intense Emotionality*

In experimental psychedelic drug therapy, emphasis has been placed on uncovering deep feeling states and helping to channel the resulting catharsis into greater insight and self-understanding. This involves discovering and penetrating old habits and value systems and progressing into new territories of personal experience and awareness.

Music, too, has been described as an agent "that causes the censor to weaken [Teller, 1917]," and thus opens the doors to the unfolding contents of the unconscious. Pratt (1952) wrote, "music sounds the way emotions feel." A theory called "depth provocation [Taylor and Paperte, 1958]" explains that "music because of its abstract nature detours the ego and intellectual controls and, contacting the lower centers directly, stirs up latent conflicts and emotions which may be expressed and re-enacted through music." Langer (1942) further describes music as the "formulation and representation of emotions, mood, mental tensions and resolutions."

This ability of music to release emotion is greatly amplified by the use of a psychedelic drug which allows the listener to project his personal experiences and visual fantasies into the unfolding experience. The evoked material may become so meaningful that the patient may exclaim, "I have heard the music before but never has it spoken so directly to me, and to my needs."

The examples quoted below indicate catharsis provoked by musically-stimulated association, and depict the variety of musical experiences that are possible.

Regression to early experiences of the mother-child relationship and subsequent reliving or re-integration of warmth and feeling at an infantile level may be facilitated and intensified by the female voice:

- Ex. 4. The richness of Mahalia Jackson's voice [singing "I Believe"] and bosom and personality enfolded me, and I drew comfort from it, like a child.
- Ex. 5. The voice seemed to fill my whole being, all the

resonate cavities of my body, filling them with warmth and acceptance. I became the baby and was filled with more love than I as a child could take. The overfilling was so emotionally overwhelming that I burst into song singing with the mother, and then becoming the mother giving love to the child, the universal child. ["Brezaïrola," *Songs of the Auvergne*.]

And as assurance of masculinity:

Ex. 6. The capacity of the music to arouse and evoke feelings of very different kinds was indeed dramatic. The opening notes of Beethoven's fifth symphony and of Bach's "Toccatina and Fugue" in D minor each sent an expansive surge of power through me. These were the kinds of things that in some way seemed to be informing me of my masculinity. They seemed to be reminding me that it was more important and more powerful than I had thought.

Music has, as well, the power to release unpleasant emotions, and these are welcomed by the therapist as indicative of problem areas that need working through. Assurances such as "trust, let go, and follow the music wherever it will take you" are frequent verbal encouragements used during a session.

Ex. 7. . . . there began to be some foreboding music and I had a sense of increased anxiety, feeling that with this music I would then again experience some of the extreme difficult feelings I had earlier.

And the projection of emotions onto music:

Ex. 8. The voices in the music at certain parts would assume an effect quite different from their angelic quality. I remember particularly with some humor when a religious hymn turned into the sound of nagging voices. The voices generally tended to be masculine. There was also the recollection that part of the notes in a particular melody assumed human stature, which I recognized as that of my parents, although they actually never appeared as people, and were sur-

rounding me much like balloons pushing down on me in a gentle, but persistent fashion, with me struggling against the pressures.

### 3. *By Contributing Toward a Peak Experience*

Although both positive and negative contents of the sub-conscious mind are released by the psychedelic drugs, the experiences of the patient are often deeply positive in tone and sometimes religious in nature. The term "psychedelic" means mind-manifesting or mind-opening. Psychedelic peak therapy emphasizes the skillful use of LSD to produce an intense, positive experience. Underlying this treatment approach is the hypothesis that the occurrence of such an experience may produce within the patient the greatest life-changing, and most enduring results. After 15 to 30 hours of intensive individual psychotherapy, including specific preparation for the LSD session, a large dose of the drug (200-400 mcg) is administered with the aim of triggering an experience that might be called "peak," "cosmic," or "transcendental." Six major psychological characteristics of this experience are as follows:

1. A sense of unity or oneness (positive ego transcendence, loss of usual sense of self without loss of consciousness)
2. Transcendence of time and space
3. Deeply felt positive mood (joy, peace, love)
4. Sense of awesomeness, reverence and wonder
5. Meaningfulness of psychological and/or philosophical insight
6. Ineffability (sense of difficulty in communicating the experience by verbal description) (Pahnke, 1969)

Similar experiences may occur spontaneously in response to music "which in all ages has given man a sense of mystical but immediate kinship with the transcendental and the universal [Masserman, 1955]." Psychoanalytically-oriented writers describe such oceanic feelings of ego loss evoked by music as regression to "primary process," but perhaps a better description might be "regression in the service of the ego (Kris, 1962)." "A person going through such a musical experience may feel as if the limits of his ego dissolve and as if he is about to unite with the universe,

and even to master it [Noy, 1967]." Such unitive feeling states made possible through music, when combined with the deeper and more profound experiences evoked by the drug, can provide an optimum setting for the emergence of powerful and positive feelings.

Of the unitive experience:

- Ex. 9. . . . then I went back into the music . . . I sang with the choir, I felt wrapped up in the organ, in the sense that I wasn't simply listening to the organ, I wasn't playing the organ, I *was* the organ, particularly the bass notes.
- Ex. 10. I became the cello . . . and I became the artist who played, knowing before she knew how her bow was to be placed on the string; knowing her musical thoughts and feelings before she put them into execution. I was creator and created, a part of every increment of being, a musically perfect moment-to-moment experience.

Of the sense of awesomeness, reverence and wonder:

- Ex. 11. The music was really taking me now . . . the cycles (were) getting higher and deeper and I was soaring and delving. The images were gothic with vaulting arches and stone; and then I was thrust to the very heights, into the presence of God.
- Ex. 12. I had a feeling that everything in the Universe fit together and there was some sort of higher order to everything. I vaguely remember some kind of majestic music playing at this point . . .
- Ex. 13. . . . that everything that has been in the music, the deep chords represents eternity as a classical composer must have experienced it and that there is a grandeur of all of creation from its beginning to its culmination of which we are all a part, and the "I" is no longer important—the whole heavenly host is joined in being swept up or lifted up into the light.

#### 4. *By Providing Continuity in an Experience of Timelessness*

Experience at MPRC has indicated the advisability of almost continual use of music during the session hours. Silences, al-

though very brief in conscious time, may be experienced under the drug as unbearably long. The subject usually becomes so accustomed to the music as a continuation and guide that the pauses between records or taped selections can provoke uneasiness, and seem interminable. Thus, it is very important to avoid unnecessary lapses into silence.

- Ex. 14. There were times in which I experienced considerable tension when there was time out to change the record. The music was very reassuring and when it would start again I would become much more relieved.
- Ex. 15. When the music stopped, the flow of imagery stopped and I felt suspended in a spaceless void. A renewal of the music was a reassurance that the experience was continuing.

When the sense of time is greatly altered (usually expanded), music may provide a stabilizing point of reference.

- Ex. 16. One thing occurred that amused me at the time . . . I was watching this music as it played—not hearing it but watching—whatever the number I was listening to came to the final cadence . . . that final chord extended as I counted it beat by beat, on a metronome which I could hear ticking; it extended for twenty-four measures of four beats each. During the experience the music frequently did strange things like that. It might take one note ten or fifteen years to finally change into another note. At other times the music was greatly accelerated.
- Ex. 17. I had the sense of actually being able to crawl between the notes and get into the spaces in the music. Also, as the bow moved across the violin, or even more so across the cello, I could hear cell by cell as that bow, slowly, and what sometimes seemed forever, moved across the string it was playing.

Rhythm, that element within music most responsible for time, has been called the organizer and energizer of sound (Gaston, 1968). "A steady rhythm endows a stimulus with a quality of predictability, which in turn creates an unconscious attitude

of relaxed and secure expectance (Kubie and Margolin, 1944).” Under the drug, somatically derived rhythms often join with those musically produced as release for inner tensions:

Ex. 18. There was an experience which culminated in a nothingness—just a beating of my chest in time to the music. It may have been Scriabin’s “Poem of Ecstasy.” Pressure building up in rhythm with the music, I could feel myself taking six deep inspirations as though the music was pacing my respiration. It was a sublime feeling of not being able to get enough of this beautiful music inside me. Filling up to the bursting point at the time that the music subsided, I felt like I was floating down, exhausted.

#### 5. *By Directing and Structuring the Experience*

The usual verbal control systems are not as available to the therapist in the psychedelic drug session as in ordinary consciousness. In the 10 to 12 hour period of drug reactivity characterized by striking, varied and anomalous mental functioning, certain dimensions are antitherapeutic (panic, terror or psychotic reactions); others are less relevant (e.g., sensory changes), although perhaps interesting and enjoyable. To guide the patient into areas where intense emotionality is faced and dealt with, controls of a nonverbal but structured nature are required.

The success of music has been attributed to the lack of intellectual resistance, so often found in therapies relying on words (Masserman, 1955). It is the wordless meaning of music which provides its power of direction and emotional structure. Theoretically, the “ordered” quality of effective music may allow a psychological release which facilitates drug action and yet structures internal experience.

Ex. 19. With the music being played all the time, not only did this carry one into the vortex or into a liquid depersonalized state, but it also played its own tricks. . . As the music moved, wherever the imagination went, the image mirrored the imagination, thus, if one wanted to be strung out on a note . . . one could move along on a great panorama of this one

single note, changing color and texture. For instance, there were two Beethoven pieces played and in both cases I seemed to see pastel shades, as though the same composer evoked the same type of coloring.

Ex. 20. The low beautiful deep tones of “Deep River” allowed me to explore the depths with confidence, realizing that the deeps are beautiful and revealing.

At times during the session a patient may struggle very hard to maintain defenses by resisting the powerful emotionally-revealing effects of the drug. Resistance may take the form of objection to the music stimuli and their releasing effects. Voiced objections to the music, therefore, may indicate to the therapist that problem areas are being encountered.

Ex. 21. . . . began to resent the music, becoming increasingly impatient with it. I requested other music, but it produced the same effect, and I became increasingly restless and resentful of having to put up with it. However, [my therapist] suggested that I was reacting to the music because something was troubling me and that perhaps what I should do is focus on some of the problem areas I had discussed with him.

Ex. 22. The struggle for control followed a very circular sort of patterning which the various choruses of the music acted to build the tension higher and higher. I also had the appreciation that whatever control I would exert in holding on, that the next chorus of the music would simply get stronger until such time as I was forced to let go.

Although emotion-arousing, music always provides a choice of distance to the listener, a paradox of the music being at the same time close to one and also far away. “There is something about music that keeps it at a distance even at the moment it engulfs us [Copland, 1952].” This double meaning, which may act simultaneously or separately in ordinary consciousness, when extended to psychedelic drug experiences allows a multidimensional expression of feeling states. While allowing for multiplicity of meanings, both in the drug state as well as out of it, music continues to provide structure.

Ex. 23. I was aware that in ordinary musical listening one only experiences a fleeting feeling response to the music, and it is all condensed and experienced quickly, whereas under LSD, the experience was very drawn out and its particular parts could be experienced.

Ex. 24. "The most beautiful array of fabrics and trimmings in fantastic inter-weaving of designs and in delicate colors of pastel to more intense in hue followed the inter-weaving movements of the music—visualizations of the voice timbre—ever changing in complex and unusual ways. . . I began to see in the fantastically beautiful forms, so complex and rich, a value in the many intricacies and complexities of life. I came to appreciate both the simple and the complex and to desire one and then the other. Realization came that life would indeed be dull if one limited one's appreciation to any one form of creation. In truth, complexity leads eventually to simplicity, and simplicity to complexity in a never ending cosmic display of increasing delight and change. If one does not limit or stop the process, one can be intimate with dazzling creative newness, every day, endlessly."

#### HOW MUSIC IS USED IN PSYCHEDELIC DRUG SESSIONS

There has been considerable discussion by those who are acquainted with the LSD experience regarding the proper use of music in the session. One group, mostly comprised of young psychedelic drug users, feels that music written specifically for or under the use of the drug is definitely preferred. Gaston and Eagle (1970) claimed that familiar music was preferred to miscellaneous music. The therapists at MPRC agree that the type of music is not as important as the elicited mood, structure, pitch and musical dynamics, and that these can change as a function of the hour during which they are played in the drug experience.

Music written specifically for the psychedelic experience by current pop artists appears to be more a reflection of low dosage sessions characterized by stylized adolescent experiences than of the high dosage experiences encountered in psychedelic

Figure 1

#### MUSIC EXPERIENCE QUESTIONNAIRE

Name: \_\_\_\_\_ Sex: \_\_\_ Age: \_\_\_ Date: \_\_\_\_\_

##### 1. Practical Experience

- a. Do you, or have you, played a musical instrument? \_\_\_\_\_
- b. Have you taken private lessons? \_\_\_\_\_  
class lessons? \_\_\_\_\_ How many years? \_\_\_\_\_ On what instrument? \_\_\_\_\_ in voice? \_\_\_\_\_
- c. Have you sung in a choir? \_\_\_\_\_
- d. Can you read printed music? \_\_\_\_\_

##### 2. Music Appreciation

- a. Do you listen to music on AM radio \_\_\_\_\_ FM radio \_\_\_\_\_  
Stereophonic equipment \_\_\_\_\_ TV \_\_\_\_\_?
- b. Do you regularly purchase phonograph records? \_\_\_\_\_  
How often? \_\_\_\_\_
- c. How often do you listen to music each week, or day? \_\_\_\_\_  
Hours \_\_\_\_\_
- d. Do you listen to music as a background for other activities or do you usually give it your full attention? \_\_\_\_\_
- e. Are you aware of musical background when you watch TV or when you go to the movies? \_\_\_\_\_
- f. Do you like music or do you just tolerate it? \_\_\_\_\_

##### 3. Music Preference

- a. What type of music do you listen to? \_\_\_\_\_
- b. Is the type of music you listen to the type you like the best? \_\_\_\_\_
- c. The following is a list of categories of music. Please read them over and place a 1 before the types you *like* best, a 2 before the types you feel *neutral* about and a 3 before the types you like the *least*. Please mark each category 1, 2 or 3.

###### POPULAR:

Love-ballad (romantic)  
Folk  
Jazz  
Country-Western  
Rock, Soul  
Musicals  
March  
Sound Tracts  
Waltzes

###### CLASSICAL:

###### VOCAL:

Masses  
Operas  
Operettas  
Art Songs  
Oratorios  
Hymns and sacred songs

###### INSTRUMENTAL:

Symphonies  
Sonatas  
Tone Poems  
Program music  
Overtures

- d. Please list specific records or pieces you particularly like in the space below.
  - e. Please list your favorite composer and/or artists.
4. Is your hearing normal? \_\_\_\_\_  
When was it last checked? \_\_\_\_\_

psychotherapy. Rock music, when it is requested, is useful in the late session hour when the insistent rhythms and the emphasis on unusual effects provide interesting aesthetic-sensory configurations.

Playing music that is familiar to the patient, or that he wants to hear, is not always the best for him therapeutically, nor appropriate for what he will be experiencing in the session. The patient may want to escape his problems, and self-chosen music could be one means of avoiding honest confrontation. This does not imply that his preferences are not considered. Administration of a Music Experience Questionnaire (MEQ, Fig. 1) tabulates the patient's music experience, interest, involvement and preferences. These data are a factor in the final choice of the music program for each individualized session.

The appropriate choice of musical selections is crucial when consideration is made of the special psychological states released at various phases of psychedelic drug action. In the aesthetic enjoyment of the arts an attitude of detachment is indicated. Under a drug like LSD, however, the listener is enabled to surrender more wholly to the effects of the musical stimulus. He is a more passive instrument, and, in a sense, may be "played upon by the music." The extreme vulnerability of this state requires a sensitive and responsible use of the medium. The therapist chooses the records which will be played at various phases of the drug action because he has, through repeated experience, found that some selections are much more effective than others. His choice is further determined by the reaction of the patient to the evolving session material. At critical times during a session the therapist may variously use the music to communicate a reassurance, to deepen an experience, or to lead the patient into an area of therapeutic confrontation.

For some patients the content and meaning of the music presentation may not correlate with the evolving sequences which occur while under the drug (i.e., during the playing of profound music, mundane psychodynamic sequences may be elicited which are of a trivial and secular nature). The reverse may also be true in that less serious music may evoke profound states of awareness. In other instances the patient may declare either that he was unaware of the music or that the music was a

constant irritant and hindrance. Although the meaning of music as a specific foreground stimulus may at times appear to be irrelevant, its unique ability to support and carry the session along in a structured way often proves to be of profound significance.

Two variables are essential in the coordination of a musical program with the different phases of drug action. They are: 1) music which is appropriate, and 2) the time at which it is played. With these in mind a review was made of recorded music which was most frequently played by the therapist and which was voted by them as most effective in producing psychedelic peak experiences (Bonny, 1969). Each of the seven therapists was asked to indicate the phase of drug action to which, in his opinion, each musical selection they had chosen was best suited. Six phases of drug activity were delineated with corresponding type and mood of music. The following is a discussion of characteristic behavior which can be expected during the drug session hours coordinated with appropriate musical selections.

#### *Phases of the LSD Experience*

*Phase 1:* Pre-onset (0 to 1½ hours). The effects of LSD start very slowly and almost imperceptibly within 10 to 30 minutes after the drug is ingested. Music of a light popular type, or that chosen by the patient, is indicated. The mood of the music should be pleasant and neutral, of a nonspecific quieting type. Some therapists prefer to maximize personal and verbal interchange by using this time to talk to the patient about his expectations for the session, or to look at family pictures with him. Music with appropriate lyrics may communicate a reassuring message more effectively than verbal communication would. Examples from the popular category are Peter, Paul and Mary singing "Hurry Sundown" or "For Baby," the Beatles' "Within You Without You" and "Let It Be," and Moody Blues' "Love Is All Around."

*Phase 2:* Onset (½ to 1½ hours). The drug begins to have a definite effect. For a patient having his first session the onset of the drug action can be rather exciting; the atmosphere should encourage calmness and help him relax as much as possible as the drug effects increase (usually in waves of feeling). For a



smooth entry into the experience, music of a quiet but positive and reassuring mood with good melodic line and regular rhythm is suggested, such as the adagio movements of the Vivaldi Concerto in D for guitar, Brahms symphonies, or Vaughn Williams' *Fantasia on Greensleeves*. When unmistakable drug effects are noted (e.g., the patient may have some dizziness, difficulty in sitting up, visual changes or emotional feeling states), he is directed to lie down on the couch and given the eyeshades and earphones that will enable him to go more deeply into the powerful stimuli of drug and music.

*Phase 3: Building Toward Peak Intensity* (1½ to 3½ hours). During this period when the drug effects are increasing and strongly building toward peak intensity, the overwhelming nature of the experience (usually much more than the patient has anticipated) can lead to resistance, fear and an eagerness to escape the deepening effects of the drug. It is possible, even under the powerful drug effects, to try to hold back and be an onlooker rather than a participant. Some degree of turbulence is present in this phase in most drug sessions, but careful selection of music can be a great help in going through to deeper levels of positive emotion.

The choice of music as amplifier and stabilizer is crucial. Instrumental and vocal music are often used alternately. Instrumental music can provide underlying support and structure as the patient works through his evolving conflicts and problems. Vocal music often emphasizes human relationships and tends to encourage feelings of closeness and humanness and, if positively oriented, can establish a mood of reassurance and comfort. The use of English words with music may not be advisable during periods of intensity and emotional turbulence, as it invites the activity of the rational mind and intellectualization at the expense of unfolding intuitive experience. Later in the session however, words can be meaningful. As the human voice itself can be very effective in periods of turbulence, music sung in an unfamiliar language is a useful substitute.

The therapist uses the music to help draw the patient into the swiftly expanding experience and to enable him to yield completely to his emotions. At the same time, the music should

provide an undercurrent of support and forward movement. Music for this phase is characterized by insistent rhythms, long flowing phrases and dynamic crescendos. Examples are the first movements of Beethoven's *Symphony No. 5* and Brahms' *German Requiem*, Smetana's *Moldau*, and the opening chorus of Bach's *St. Matthew Passion*. Music which suggests insistent movement is relieved at regular intervals by music of a reassuring and supportive nature. Examples are Bach's "Arioso" and "Come, Sweet Death," Elgar's *Enigma Variations*, Mozart's *Laudate Dominum*, Mahalia Jackson singing "I Believe," Schubert's "Ave Maria," and selections from the Mormon Tabernacle Choir albums of hymns and anthems (Figure 2).

*Phase 4: Peak Intensity of Drug Action* (3 to 4½ hours). The time of peak drug intensity when psychedelic peak experiences are most probable comes 3 to 5 hours after ingestion. The greatest effort is made to provide an optimal setting for this type of experience. It is for this period that there is the greatest agreement among therapists regarding the type of music to employ.

As this is the most critical period of the session, a discussion of appropriate and inappropriate ways in which music can be used is especially important. In the repertoire designated as peak music are certain selections which have been shown by experience to evoke powerful emotions and to aid greatly in facilitating the occurrence of peak experiences if played at the proper time. If these selections are played at an improper time, the potential effect can be wasted and a negative musical imprint for that particular selection may result. The therapist must first determine the psychological state of the patient and then choose a selection that implements the treatment aim. When a patient is stuck, blocked and unable to release emotion, very powerful, strongly structured music with insistent rhythms and a wide frequency range can be used to move him through conflict situations and into emotional abreaction. Examples of this kind of music are Beethoven's fifth symphony and first movements from his piano concertos, and "Winter," from Vivaldi's *The Four Seasons*. Extremely dischordant music, however, can unduly

frighten the patient and throw him into a state of confusion or panic.

Peak music can help lift a person to psychedelic peak reactions if he is already headed in that direction on a smooth course. A degree of trust, cooperation and willingness to surrender and go into the music must be experienced before even this maximal music is going to be effective. Appropriate music for peak time includes Gounod's *St. Cecilia Mass*, Richard Strauss' "Transfiguration" from *Death and Transfiguration*, Faure's *Requiem*, Parts III and VII, Barber's *Adagio* for strings, Brahms' *The German Requiem*, Parts IV, V, VII, and selected hymns and anthems (see Figure 2).

*Phase 5: Re-entry* (4½ to 7 hours). The re-entry phase is determined by the type of experience that has been encountered during the peak hours. If the patient has experienced a positive peak experience, he will enter a phase in which the exalted feeling tone remains. The rapidly changing experiences of the early hours of the drug are replaced by a plateau of stabilized feeling. The music should reflect the quiet, peaceful feelings that the patient is now experiencing: e.g., the adagio movement of Brahms' violin concerto, Wagner's *Lohengrin*, "Prelude to Act I," and the "Liebestod" from *Tristan and Isolde*; the adagio movement of Rachmaninoff's second symphony, and *Music for Zen Meditation*. A form of amnesia for music played during this period and/or in Phase 4 may occur. Environmental sensory stimuli appear to become less important as the patient enters a deeply quiescent state. Experiences are sometimes reported of hearing spontaneous internally produced music of great beauty. The incidence of spontaneously produced music can frequently be enhanced by the introduction of periods of silence or in response to minimal auditory stimulus (white noise or humming) (Grof, 1972).

In instances where the patient has not experienced a psychedelic peak, the re-entry phase is a period of integration and working through of insights gained during the peak hours of the session. The therapist is usually active in helping the patient re-experience, while still under the influence of the drug, deep areas of conflict which have emerged. Replaying of music which accompanied abreaction in the earlier hours can provide an opportunity for more complete release.

In the latter part of the re-entry phase, musical selections of a lighter type are played. The increased awareness of the aesthetic beauty of sound, amplified by the drug, is still in effect. Familiar music now may be greatly enhanced and especially meaningful to the patient. Selections which have been found helpful for this period are the last part of Copland's *Appalachian Spring*, Luboff Choir Album *Apassionata*, *Misa Criolla*, and Villa-Lobos' *Bachianas Brasileiras* #5.

*Phase 6: Return to Normal Consciousness* (7 to 12 hours). The waning effects of the drug come and go as normal consciousness returns. Music of the patient's choice is played and family members are allowed to visit with the patient in the session room.

In the postdrug therapeutic hours, the playing of session music which was especially meaningful to the patient can elicit a repetition of affect and may provide an opportunity for a more thorough assay of both problem areas and positive experiences.

#### INSIGHTS ON THE USE OF MUSIC IN DRUG-ASSISTED THERAPY WHICH MAY APPLY TO NONDRUG THERAPY

There are qualifications and conditions which relate to the optimal use of music during therapy with psychedelic drugs that also have relevance to its use in more traditional modes of treatment. Investigators are discovering that music intervention is an effective stimulus in conjunction with therapeutic techniques such as hypotherapy, guided affective imagery (Leuner, 1969), and autogenic training. Also there is the contemporary interest in altered states of consciousness which has grown out of the human potential movement and which is providing renewed interest in the arts. The following guidelines and suggestions result from our observations and experience.

1. It is very advisable that the source of music production be high quality equipment and include a stereophonic turntable, amplifier, speakers and earphones. Manual skill in the operation of the equipment is important as it applies to the comfort of the patient and to the effectiveness of a smoothly-run session. Pauses between records are difficult to tolerate and the patient will often beg for the music to continue as, for him, the visual ex-

perience may appear to "stand still" as if de-energized or suddenly bereft of meaning. The flow of colors or feelings will suddenly jell and, as one patient described it, "substance is present but fluidity has fled." Thus, records should be quickly and smoothly changed, and the volume turned down between selections.

2. Good recorded, taped or live music should be chosen, with an effort to present the best available performance of the selected composition. Attention should be given to the musical interpretation of the artist and to his sincerity of thought. A frequent patient comment on a poor recording is that "the musician did not believe in what he was singing or playing," which is indicative of the hypersensitivity to the quality of stimuli that a patient exhibits in an altered state of consciousness.

3. The music should be continuous, with minimal interruption. It should be nonrepetitious in style and with an emphasis on variety in presentation, such as vocal-instrumental, complex harmonic-simple melodic, high pitch-low pitch, and with variety in timbre and rhythmic patterns.

4. The basic music profile of the patient in which music experience and preference is noted (MEQ) may guide the music choice in the early and late hours of the session, and at special times within a session when the therapist decides that the reassurance of familiar music is desirable.

Music played at peak hours, however, tends to leave an imprint at deeper levels of the psyche beyond the usual levels of learned experience and choice. This may explain the observation of some patients that their music preference has changed as a result of the session, in the direction of the music that was played (classical). Evidently, the notion that music is culturally bound may, under these conditions, be questioned.

5. Reference was made earlier in this paper to the importance of the therapist's role as a part of the session setting. The long hours of constant attention and the close rapport which this therapy demands creates an unusual interpersonal interaction in which the therapist's feelings about the music are often felt by the patient. In addition to creating a pleasant environment for optimal therapist performance, certain music selections are used to amplify his particular skills and therapeutic approaches.

6. For some patients the continuing musical stimuli may pro-

voke a sensory overload situation that may deter rather than enhance the dynamic significance of the treatment. The skill of the therapist is then required to determine whether a threshold for auditory bombardment has been reached or whether mechanisms of psychological resistance have been activated. If the former, the use of another sensory modality may provide a restful and productive interlude. The visual experience of looking at selected pictures of great works of art, enjoying the sight and smell of beautiful flowers, or the heightened taste experience of eating fresh fruit are valuable substitutes.

7. It is conjecture on the part of those who work with the peak-producing drugs that certain musical selections have seemed to be written specifically for that experience. The interesting question arises as to whether the composer has indeed experienced the altered or transcendent state as inspiration for, or during the writing of, that particular composition.

It is the hope of the authors that the presentation of this therapeutic approach may provide the incentive and inspiration for replication by other research clinicians. The profound effects which are possible through the use of meaningful music in conjunction with drug-facilitated states of consciousness can offer the music therapy profession an unusual opportunity to explore the hypothesis that music is therapeutic at deeper levels of the psyche.

FIGURE 2  
Selected Recordings for use in Psychedelic (LSD) Psychotherapy Sessions

Selections	Record Number	Alternative Selections	Record Number
(0 to 1½ hours)			
Mantovani: <i>Songs to Remember</i>	PS193 London	Peter, Paul and Mary: <i>Album</i> Beatles: <i>Let it Be</i>	WB 1648 Apple 2764
Vivaldi: <i>Concerto in D, Guitar; Adagio</i>	CM 9270; LSD 2730	Albinoni: <i>Sinfonia for Orchestra</i>	MHS 859
V. Williams: <i>Fantasia on Greensleeves</i>	Angel 36101	Vivaldi: <i>The Four Seasons; Winter</i> Bach: <i>Brandenburg Concertos</i>	Odyssey 3216 0131
Beethoven: <i>Piano Concerto #5; Adagio</i>	BC 1139	Grieg: <i>Piano Concerto; Allegro, Adagio</i>	BICS 1067
Brahms: <i>Symphony #1; Allegro, Andante</i>	CC 11011SD	Brahms: <i>Piano Concerto #2 (Serkin)</i>	ML 6367
Strauss: <i>A Hero's Life (selections)</i>	VICS 1042	Rachmaninoff: <i>Piano Concerto #2; Moderato, Adagio</i>	SAL 3496
Mozart: <i>Laudate Dominum: Vesperas, K339</i> <i>Ave Verum; K618</i>	Time-Life	R. Wagner: <i>House of the Lord; Panis Angelicus, Lord's Prayer (Malotte), Ave Maria (Schubert)</i>	SP 8365
Smetana: <i>Moldau</i>	Time-Life	Bach: <i>Toccatà and Fugue in D</i>	Time-Life
Bach: <i>St. Matthew Passion; 1st Chorus Aria-Erbarne dich, mein Gott</i>	Time-Life	Strauss: <i>Der Rosenkavalier; Act 3, duet</i>	Time-Life
(1½ hour)			
Mormon Tabernacle Choir: <i>Come, Come Ye Saints; O, My Father: Lord's Prayer I</i>	MS 6068	Mormon Tabernacle Choir: <i>Beloved Choruses II</i>	MS 6679
Elgar: <i>Enigma Variations; #8,9</i>	835 317 LY; VICS 1107	Beethoven: <i>Piano Concerto #3, Allegro Largo</i>	LSC 2122

FIGURE 2 (Continued)

Selections	Record Number	Alternative Selections	Record Number
Brahms: <i>The German Requiem; part 1</i>	Angel S 3624 DDC 138 929/29	Rimsky-Korsakoff: <i>Scheherazade</i>	LSC 3042
Brahms: <i>Symphony #3; poco Allegretto</i> Boccherini: <i>Cello Concerto in D; Allegro</i>	CC 11011SD (De Pre) Angel 36439	Brahms: <i>Symphony #4: Andante Moderato</i> Grofè: <i>Grand Canyon Suite, Sunrise</i>	CC11011SD SDBR 3044 Angel S 3624
Bach: <i>Arioso</i>	ML 5065	Brahms: <i>The German Requiem; part 2</i> Beethoven: <i>Symphony #5</i>	CS 6619
(2½ hours)			
Vivaldi: <i>Gloria; Et in Terra Pax</i> Bach: <i>Come, Sweet Death (vocal)</i> (instrumental)	Angel 36003 MS 6367 ML 5065	Counod: <i>St. Cecilia Mass; Kyrie, Credo</i> Scriabin: <i>Poem of Ecstasy</i>	Angel 36214 London 6552 SDBR 3032
Wagner: <i>Tristan and Isolde; Liebestod</i> Beethoven: <i>Symphony #9; Adagio</i>	DDG 136228 CS 6134 MS 7016	Mahalia Jackson: <i>I Believe</i> Simon and Garfunkel: <i>Bridge Over Troubled Waters</i>	CS 1549 KCS 9914
Counod: <i>St. Cecilia Mass; Offertoire, Sanctus, Benedictus</i>	Angel 36214		
Strauss: <i>Death and Transfiguration (Transfiguration only)</i>	Angel 35976	N. Luboff Choir: <i>Inspiration</i>	LSC 2593
(3½ hours)			
Faure: <i>Requiem; Sanctus In Paradisium</i> Barber: <i>Adagio for Strings</i>	SP 8596 SP 8673	Palestrina: <i>Stabat Mater</i> Bach: <i>Concerto for Two Violins; Largo</i>	Time-Life DDG 138714 St 33
Wagner: <i>Lohengrin; Prelude to Act I</i> Brahms: <i>Violin Concerto; Adagio</i>	DDG 136228 DDG 138198S	Mormon Tabernacle Choir: <i>Beloved Choruses II</i>	MS 6679

FIGURE 2 (Continued)

Selections	Record Number	Alternative Selections	Record Number
Brahms: The German Requiem; part 4 & 5	Angel S 3624	Verdi: Requiem	Turna 21268
N. Luboff Choir: <i>Inspiration</i> , Deep River	LSC 2593		
Tschaikowski: A Golden Cloudlet } Tshesnekoff: Salvation is Created }	Oberlin Choir in Russia	Brahms: The German Requiem; part 7	Angel S 3624
Bach: Air for the G String	ML 5065		
(5 hours)			
Mahler: Symphony #4; Ruhvell <i>Music for Zen Meditation</i>	Angel 35829	Beethoven: Symphony #6; Allegro	MS 6549
Holst: The Planets; Venus	Angel 36420	Paul Horn: <i>Inside</i>	
<i>Songs of the Auvergne</i> , Brezairola	VSD 2090	<i>Classical Ragas of India</i>	Everest 3217
Copland: Appalachian Spring (last half)	Time-Life	<i>Joy is Like the Rain</i>	AVS 101
		Mormon Tabernacle Choir: <i>The Lord is</i> <i>My Shepherd</i>	MS 6019
Villa-Lobos: <i>Bachinas Brasileiras</i> #5	P 8406	Ravel: <i>Daphnis and Chloe</i> : part 1	WST 14024
(6 hours)			
<i>Misa Criolla</i>	PCC 619	N. Luboff Choir: <i>Apassionata</i>	LSP 2341
Respighi: <i>Pines of Rome</i> : Giancola	Angel S 36495	Sinding: <i>Suite</i> #10; Adagio	LM 2836
Simon and Garfunkel: <i>Scarboro Fair</i> , Home- ward Bound, El Condor	CS 9363	Britten: <i>A Ceremony of Carols</i> (selections)	ZRG 5440
Moody Blues: <i>Question of Balance</i> ; Minstrel		Ray Repp: <i>Sing Praise</i>	FELS 282
Song, Dawning is the Day	THIS 3	Coltrane: <i>A Love Supreme</i>	LIP A-77
<i>Sound of Music</i> (Selections)	LSOD 2005	Debussy: <i>Girl with the Flaxen Hair</i> ,	
J. Mathis: <i>Goodnight, Dear Lord</i>	CS 8012	<i>Sunken Cathedral</i>	Time-Life

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