

## **Music for Relaxation: A Comparison of Musicians and Nonmusicians on Ratings of Selected Musical Recordings**

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*The purpose of this study was to determine the kinds of musical selections/CDs to place in a portfolio to be used within a music listening/relaxation program for parents of children in a pediatric hospital. A panel of experts (4 music therapy graduate students and 2 music therapy instructors) listened to a selection of CD recordings (n = 10) which reported to contain music for relaxation. These 10 recordings were chosen based either on words within the title suggestive of sedative/relaxing music, or the literature (booklet) accompanying the CD that contained claims of such therapeutic value. Average number of selections across the 10 recordings was 9.8 with a total of 98 musical selections presented to the panel. A 1 1/2-minute segment from each selection (starting at the beginning of each piece) was played on a stereo CD unit, and time was given to complete a response form following each of the musical selections. The panel was asked to rate the relaxation quality of each piece, and to specify the musical characteristics that enhanced and/or distracted from relaxation. Weekly listening sessions of 40–50 minutes in duration were scheduled across a 10-week time period. Based on the results of the experts, 10 of the 98 musical selections were chosen for presentation to a group of nonmusicians. Again, as with the experts, the nonmusicians listened to 1 1/2-minute segments from each selection and completed a response form similar to the form completed by the panel. Additional questions asked the nonmusicians whether they listened to music for relaxation, and if so, what kind(s) of music they preferred to use for this purpose. Results from the panel of experts and nonmusicians were compiled, and descriptive statistics were used to compare the data. Suggestions were given concerning possible inclusion*

*of musical recordings that may be used in a music listening/relaxation program for parents of children within a pediatric setting.*

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A previous study described the implementation of a music listening/relaxation program for parents of children admitted to a pediatric hospital (Wolfe & Woolsey, 2000). One component of this program was the creation of a portfolio of musical recordings from which parents could choose music for relaxation. The portfolio consisted of a small vinyl CD wallet containing photos of CD covers and listings of selections from each of the enclosed CDs. Music therapists (musicians) developed this music menu, even though its primary use was with parents (nonmusicians). A major concern for the therapists was preparing a portfolio of recordings from which parents would choose one or more to use for relaxation during hospital visits. Questions frequently discussed by the music therapists were: What kind of recordings should be placed in the portfolio? From a selection of CD recordings that purported to contain "relaxing" music, would nonmusicians, as well as musicians find these recordings relaxing? When specifically asked to designate the kinds of music that might be used for relaxation, what kinds of recordings or specific pieces would nonmusicians report? How would nonmusicians describe music that was relaxing or distracting? These therapist-generated questions became the impetus for conducting this present investigation.

Previous studies that have examined the use of music for relaxation can be divided into nonclinical (basic research) or clinical (applied research) investigations. Most nonclinical studies are designed to determine the perceptions of the participants regarding the nonmusical qualities of prerecorded musical recordings (e.g., degree of relaxation; degree of enjoyment). Participants are engaged, within a nonclinical environment, in listening to specific musical selections followed by completing self-ratings using Likert-type scales. Clinical studies, however, occur within therapeutic settings and frequently involve participants in listening to music (live or prerecorded) combined with other therapeutic techniques (e.g., progressive muscle relaxation, deep breathing, and visual imagery) to determine not only client/patient perceptions but other

therapeutic benefits. Studies included in this literature review will highlight the few nonclinical studies that have focused primarily on music listening and participant perceptions.

In a study by Stratton and Zalanowski (1984), participants rated their level of relaxation after 15 minutes of either listening to one of five types of music (soothing classical; stimulating classical; romantic; atonal; easy listening) or sitting in silence. No single type of music was found to lead to significantly more relaxation. However, the researchers reported that the single most important factor in promoting relaxation was the degree of liking for the music. The researchers concluded that individual preferences were important to consider when using music for relaxation. They also suggested that pre-categorized soothing music may not always be perceived as soothing. In a study by Davis and Thaut (1989), participants were asked to rate their degree of relaxation using a 7-point Likert-type scale from music provided by the participant on three separate occasions. Self-reported relaxation increased from pre to posttest conditions consistently across the separate trials. An additional study by Thaut and Davis (1993) assessed the effect of participant-selected and experimenter-selected music on perceptions of relaxation. The experimenter-chosen music was selected on the basis of claims that the music was composed specifically to relieve tension and increase relaxation. The participants achieved significant perceptions of relaxation. However, the choice of music (participant-selected versus experimenter-selected) did not seem to effect relaxation responses. In a nonclinical study conducted by Byrnes (1996), on-going levels of relaxation/stress were recorded by the participants using the Continuous Response Digital Interface (CRDI) while receiving audio, video, or combined audio-video music stimuli (classical music). Participants were also asked to describe the kinds of music they generally listened to for relaxation. Classical, jazz/blues, easy listening, and pop music were most often reported by the participants as types of music used for relaxation.

The purposes of this study are: (a) to replicate listeners' perceptions of relaxation to prerecorded music as in previous studies, but with a larger sample of pre-categorized, relaxing musical selections; (b) to have participants identify the musical characteristics that contribute to and/or distract from perceptions of relaxation for each musical selection; (c) to compare musicians versus nonmusicians ratings of relaxation across the musical selections; (d) to ex-

amine the types of music nonmusicians report to listen to for purposes of relaxation; and (e) to address some of the questions listed in the opening paragraph to determine the kinds of musical selections/CD recordings to place in a portfolio to be used within a music listening/relaxation program for parents of children in a pediatric hospital. To accomplish this task, a sample of musical recordings was prepared for nonmusicians to listen to and evaluate. The process of selecting the recordings and gaining feedback from nonmusicians is described below.

## Method

### *Panel of Experts*

The initial phase of this study was conducted with a panel of experts comprised of six musicians (four music therapy graduate students and two music therapy instructors, age range from 23–68 years) who were asked to listen to a selection of CD recordings ( $n = 10$ ) reported to contain music for relaxation. These specific recordings were selected from the senior author's personal CD collection and were chosen based either on words appearing in the title of the CD suggestive of sedative/relaxing music, or within the literature (booklet) accompanying the CD that contained claims of such therapeutic value. Some of the selected CD titles included: "Classical Stressbusters," "Meditations for a Quiet Dawn," "Beethoven at Bedtime," etc. Average number of selections appearing on each of the 10 CD recordings was 9.8 with a total of 98 musical selections presented to the panel.

A 1 1/2-minute segment from each of the 98 selections (starting at the beginning of each piece) was played on a stereo CD unit at a preset, moderate loudness level. Following the presentation of each 1 1/2-minute segment, time was allotted for the members of the panel to complete a response form. The panel was asked to rate the relaxation quality of each piece using a Likert-type scale (1 = not at all relaxing; 2 = somewhat relaxing; 3 = relaxing; 4 = very relaxing), and to specify the musical characteristics that enhanced and/or distracted from relaxation.

Weekly listening sessions of 40–50 minutes in duration were scheduled across a 10-week time period. Selections from one of the 10 CD recordings were presented at each of the 10 weekly sessions. The listening sessions took place in a room/studio approximately

21' × 18' containing chairs and a sofa that provided a comfortable setting for the listeners.

### *Nonmusicians*

Based on the results of the experts, 10 of the 98 musical selections were chosen for presentation to a group of nonmusicians. Eight of the 10 selections were the ones that received the highest average rating from the panelists (those receiving an average rating of 3.0 and higher), one selection was chosen that received the lowest average rating (less than 2.0), and one selection was chosen for high level of familiarity as a relaxing piece of music. (For specific titles, see Table 2). These 10 selections were then randomly ordered and prepared for aural presentation.

Nonmusicians ( $N = 86$ ) represented a convenience sample comprised of participants who were willing to attend one of several group listening sessions arranged and conducted during evening hours over a 3-week time period. A "nonmusician" status required that each participant: (a) be at least 18 years of age; (b) have no previous private music instruction at the high school or college level; and, (c) possess no college level musical training beyond a music appreciation course (for nonmusic majors) and/or "music methods" courses that are normally taught to elementary education majors. However, participation in performing ensembles; at the high school or college level, did not exclude an individual from participating in the study. Specific demographic information (gender, age, education level, previous use of music for relaxation) regarding the sample of participants is reported in Table 1.

The 10 final selections were presented during a listening session that lasted approximately 40–50 minutes in duration. Listening sessions occurred in the same room/studio used by the panel of experts. A 1 1/2-minute segment from each selection (starting at the beginning of each piece) was played on a stereo CD unit at the preset loudness level. Following the presentation of each segment, time was allotted for participants to complete a response form. The nonmusicians were asked (a) whether they had previously heard (were familiar with) the selection, (b) to rate the relaxation quality of each piece, (c) to specify the musical characteristics that enhanced and/or distracted from relaxation, and to (d) indicate whether they enjoyed or did not enjoy the musical selection.

TABLE 1  
Demographic Information Obtained Prior to Listening

|   |                              | RELAXATION MUSIC/ DISCRIMINATION PROJECT |                            |                  |                 |
|---|------------------------------|--|----------------------------|------------------|-----------------|
| Date  |                              | 19 or younger (15.1%)                    | 20-29 (59.3%)              | 30-39 (7.0%)     | Time of Day     |
| You are: Female (72.1%)   | Your age is:                 |  |                            |                  |                 |
| Male (27.9%)  | 40-49 (5.8%)                 | 50-59 (7.0%)                             | 60-69 (2.3%)               | Over 69 (2.3%)   |                 |
| <b>Please check the category that best describes your highest level of education completed.</b> |                              |  |                            |                  |                 |
| grades 1-8 (1.2%)   | 1-2 years of college (19.8%) | post-graduate education (24.4%)          |                            |                  |                 |
| grades 9-12 (9.3%)  | 3-4 years of college (45.3%) |  |                            |                  |                 |
| <b>Do you use music while relaxing? If so, how often?</b>                                       |                              |  |                            |                  |                 |
| daily (45.3%)   | several times/week (36.0%)   | once a week (4.7%)                       |                            |                  |                 |
| at least once a month (10.5%)   | never (3.5%)                 |  |                            |                  |                 |
| <b>What kinds of music do you use while relaxing?</b>   |                              |  |                            |                  |                 |
| rock (25)   | pop (23)                     | country (32)                             | R&B (23)                   | soul (11)        | soundtrack (28) |
| jazz (26)   | easy listening (35)          | classical (44)                           | alternative (33)           | world music (14) | Latin (11)      |
| <b>List specific recordings/selections that you use while relaxing:</b>                         |                              |  |                            |                  |                 |
| Eighty-seven Percent (87.2%) of Respondents Listed Specific Musical Recordings                  |                              |  |                            |                  |                 |
| <b>General Relaxation Status Prior to Listening</b>   |                              |  |                            |                  |                 |
| Very relaxed (0%)   | Relaxed (25.6%)              | Somewhat relaxed (55.8%)                 | Not at all relaxed (18.6%) |                  |                 |

## Results

As can be noted from Table 1, the majority of nonmusicians reported using music “daily” or “several times per week” while relaxing. The kinds of music they listened to were varied: Classical, alternative, easy listening, country, soundtrack, rock, etc. Eighty-five percent of the participants listed specific recordings/selections they reportedly used while relaxing. When asked to indicate their “general” relaxation status prior to listening to the 10 selections, most participants checked “somewhat relaxed” (49.2%); “relaxed” (27.1 %); “not at all relaxed” (23.7%), and “very relaxed” (0%).

It would appear from the numbers in Table 2 that both the experts and nonmusicians were unfamiliar with many of the musical selections (notable exceptions were “Moonlight Sonata” by Beethoven and “Innocence” by Kenny G). However, almost all of the selections were rated as either “somewhat relaxing” or “relaxing” by both groups of evaluators (see Table 3); exceptions were “The Unanswered Question” with an average rating of 1.93 from the nonmusicians, and “A New Day” receiving a mean rating of 1.00 (“not at all relaxing”) by the experts, and a mean rating of 1.69 from the nonmusicians. Mann-Whitney *U* tests for comparing the rankings of the ratings for the experts and nonmusicians across the 10 selections was computed. *U* values and significance levels for each of the selections are shown in Table 4. Mean rankings for the experts and nonmusicians were nonsignificant for seven of the 10 musical selections.

Analysis of the participants’ written responses to the directives (a) “If this music was relaxing for you, specify the musical characteristics that enhanced relaxation,” or (b) “If this music was not relaxing for you, specify the musical characteristics that distracted from relaxation,” was conducted using a content analysis. This procedure involved placing the written responses into the following predetermined categories:

1. **Dynamics**—responses having to do with the volume (loudness and softness) of the musical selection (e.g., “too loud” or “the instrument played very softly”).
2. **Tempo**—responses having to do with the speed of the musical selection (e.g., “the speed was good” or “the tempo was too fast to be relaxing”).
3. **Instrumentation**—responses having to do with specific instru-

TABLE 2  
*Percentage of Experts and Nonmusicians That Were "Familiar" or "Unfamiliar" with Musical Selections*

| CD Recording                    | Selection                                 | Composer     | % Familiar |              | % Unfamiliar |              |
|---------------------------------|---|--------------|------------|--------------|--------------|--------------|
|                                 |   |              | Experts    | Nonmusicians | Experts      | Nonmusicians |
| 1. Beethoven at Bedtime         | <i>Romance #2 in F</i>                    | Beethoven    | 17         | 44           | 83           | 54           |
| 2. Meditations for a Quiet Dawn | <i>Five Variants on Dives and Lazarus</i> | V. Williams  | 17         | 14           | 83           | 85           |
| 3. Beethoven at Bedtime         | <i>Emperor Concerto</i>                   | Beethoven    | 33         | 9            | 67           | 92           |
| 4. Music for Quiet Listening    | <i>Christ Looking Over Jerusalem</i>      | W. Pursell   | 0          | 3            | 100          | 93           |
| 5. Beethoven at Bedtime         | <i>Moonlight Sonata</i>                   | Beethoven    | 100        | 76           | 0            | 24           |
| 6. Meditations for a Quiet Dawn | <i>The Unanswered Question</i>            | C. Ives      | 17         | 2            | 83           | 92           |
| 7. Adagio Greatest Hits         | <i>Adagio from Symphony #2</i>            | Rachmaninoff | 50         | 31           | 50           | 66           |
| 8. Nature's Bouquet             | <i>A New Day</i>                          | D. Crowley   | 0          | 8            | 100          | 92           |
| 9. Meditations for a Quiet Dawn | <i>The Lark Ascending</i>                 | V. Williams  | 17         | 7            | 83           | 90           |
| 10. Kenny G The Moment          | <i>Innocence</i>                          | Kenny G      | 67         | 58           | 33           | 41           |



TABLE 3  
*Mean Ratings of Relaxation for Musical Selections as Judged by Experts and Nonmusicians*

| CD Recording                    | Selection                                 | Composer     | Mean Rating |              |
|---------------------------------|---|--------------|-------------|--------------|
|                                 |   |              | Experts     | Nonmusicians |
| 1. Beethoven at Bedtime         | <i>Romance #2 in F</i>                    | Beethoven    | 3.16        | 2.86         |
| 2. Meditations for a Quiet Dawn | <i>Five Variants on Dives and Lazarus</i> | V. Williams  | 3.33        | 3.42         |
| 3. Beethoven at Bedtime         | <i>Emperor Concerto</i>                   | Beethoven    | 3.83        | 2.37         |
| 4. Music for Quiet Listening    | <i>Christ Looking Over Jerusalem</i>      | W. Pursell   | 3.16        | 2.24         |
| 5. Beethoven at Bedtime         | <i>Moonlight Sonata</i>                   | Beethoven    | 3.33        | 3.07         |
| 6. Meditations for a Quiet Dawn | <i>The Unanswered Question</i>            | C. Ives      | 3.33        | 1.93         |
| 7. Adagio Greatest Hits         | <i>Adagio from Symphony #2</i>            | Rachmaninoff | 3.33        | 2.75         |
| 8. Nature's Bouquet             | <i>A New Day</i>                          | D. Crowley   | 1.00        | 1.69         |
| 9. Meditations for a Quiet Dawn | <i>The Lark Ascending</i>                 | V. Williams  | 3.33        | 2.47         |
| 10. Kenny G The Moment          | <i>Innocence</i>                          | Kenny G      | 2.50        | 2.86         |

Question/Scale

4

I consider this music to be:

Very relaxing

3

Relaxing

2

Somewhat relaxing

1

Not at all relaxing

TABLE 4

*Mann-Whitney U Test for Ratings of Musical Selections Between Experts and Nonmusicians*

| Musical selection                            | Mean rank |              | U Value | p Value |
|--|-----------|--------------|---------|---------|
|  | Experts/  | NonMusicians |         |         |
| 1. <i>Romance #2 in F</i>                    | 53.17/    | 46.03        | 218.00  | .499 NS |
| 2. <i>Five Variants on Dives and Lazarus</i> | 40.00/    | 46.95        | 219.00  | .489 NS |
| 3. <i>Emperor Concerto</i>                   | 80.08/    | 44.16        | 56.50   | .001 S  |
| 4. <i>Christ Looking Over Jerusalem</i>      | 64.75/    | 45.23        | 148.50  | .073 NS |
| 5. <i>Moonlight Sonata</i>                   | 51.58/    | 46.15        | 227.50  | .607 NS |
| 6. <i>The Unanswered Question</i>            | 70.75/    | 43.70        | 100.50  | .010 S  |
| 7. <i>Adagio from Symphony #2</i>            | 57.50/    | 45.19        | 186.00  | .244 NS |
| 8. <i>A New Day</i>                          | 26.00/    | 47.93        | 135.00  | .030 S  |
| 9. <i>The Lark Ascending</i>                 | 65.33/    | 44.64        | 139.00  | .055 NS |
| 10. <i>Innocence</i>                         | 30.25/    | 46.59        | 160.50  | .119 NS |

ments or general remarks concerning instruments of the musical selection (e.g., “the horns were not relaxing” or “I enjoyed the instruments”).

4. **Rhythm**—responses having to do with the patterns of movement in time of the musical selection (e.g., “I liked the beat of the music” or “The pulse was too strong”).
5. **Harmony**—responses having to do with simultaneous sounds heard in the musical selection (e.g., “the harmony was good” or “the sounds playing together sounded nice”).
6. **Melody**— responses having to do with elements of musical line, phrasing, melodic pitches (e.g., “the notes were too shrill” or “I enjoyed the melody”).
7. **Extra musical**—responses having to do with associations outside of the structural musical components listed here (e.g., “it reminded me of a beach” or “I felt like I was falling”).
8. **Other**—responses that fit into more than one category or did not apply to the other seven categories (e.g., “I enjoy contemporary music” or “the flow was nice”).

Responses were reviewed and tabulated by two independent observers. Interrater reliability across categories was 89%. Table 5 shows the frequency of responses across the eight established categories. Finally, when asked if they “enjoyed/did not enjoy the musical selection,” the majority of the nonmusicians “enjoyed” eight of the ten musical selections (see bottom of Table 5).

TABLE 5  
*Frequency of Written Responses and Percentage Who Enjoyed/Did Not Enjoy Musical Selections*

| Selections           | 1           | 2           | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10          | Totals      |
|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Enhancing:</b>    |             |             |             |             |             |             |             |             |             |             |             |
| Dynamics             | 19          | 28          | 23          | 18          | 22          | 23          | 20          | 3           | 20          | 15          | 191         |
| Tempo                | 52          | 53          | 26          | 24          | 29          | 19          | 32          | 6           | 22          | 28          | 291         |
| Instrumentation      | 63          | 45          | 21          | 31          | 45          | 16          | 38          | 12          | 34          | 53          | 358         |
| Rhythm               | 5           | 3           | 2           | 5           | 5           | 0           | 3           | 0           | 2           | 0           | 25          |
| Harmony              | 1           | 3           | 1           | 1           | 3           | 0           | 0           | 0           | 0           | 1           | 10          |
| Melody               | 11          | 18          | 7           | 4           | 9           | 4           | 11          | 4           | 4           | 10          | 82          |
| Other                | 15          | 23          | 13          | 12          | 30          | 13          | 23          | 33          | 18          | 28          | 208         |
| Extra musical        | 1           | 5           | 2           | 0           | 2           | 0           | 8           | 3           | 3           | 1           | 25          |
| <b>TOTALS</b>        | <b>167</b>  | <b>178</b>  | <b>95</b>   | <b>95</b>   | <b>145</b>  | <b>75</b>   | <b>135</b>  | <b>61</b>   | <b>103</b>  | <b>136</b>  | <b>1190</b> |
| <b>Distracting:</b>  |             |             |             |             |             |             |             |             |             |             |             |
| Dynamics             | 10          | 1           | 28          | 1           | 2           | 28          | 8           | 35          | 2           | 10          | 125         |
| Tempo                | 9           | 4           | 15          | 6           | 7           | 13          | 2           | 8           | 7           | 3           | 74          |
| Instrumentation      | 11          | 0           | 4           | 15          | 5           | 6           | 9           | 25          | 9           | 11          | 95          |
| Rhythm               | 0           | 0           | 0           | 4           | 3           | 0           | 0           | 1           | 1           | 0           | 9           |
| Harmony              | 1           | 0           | 0           | 1           | 0           | 0           | 0           | 1           | 0           | 0           | 3           |
| Melody               | 0           | 0           | 17          | 4           | 2           | 16          | 1           | 10          | 17          | 1           | 68          |
| Other                | 8           | 6           | 21          | 27          | 8           | 22          | 5           | 38          | 11          | 7           | 153         |
| Extra musical        | 0           | 1           | 1           | 4           | 1           | 1           | 0           | 0           | 1           | 2           | 11          |
| <b>Totals</b>        | <b>39</b>   | <b>12</b>   | <b>86</b>   | <b>62</b>   | <b>28</b>   | <b>86</b>   | <b>25</b>   | <b>118</b>  | <b>48</b>   | <b>34</b>   | <b>538</b>  |
| <b>Grand total</b>   | <b>206</b>  | <b>190</b>  | <b>181</b>  | <b>157</b>  | <b>173</b>  | <b>161</b>  | <b>160</b>  | <b>179</b>  | <b>151</b>  | <b>170</b>  | <b>1728</b> |
| <b>Enjoyed</b>       | <b>90.7</b> | <b>89.5</b> | <b>59.8</b> | <b>58.5</b> | <b>87.1</b> | <b>42.5</b> | <b>79.8</b> | <b>48.8</b> | <b>72.3</b> | <b>83.5</b> |             |
| <b>Did Not Enjoy</b> | <b>9.3</b>  | <b>10.5</b> | <b>40.2</b> | <b>41.5</b> | <b>12.9</b> | <b>57.5</b> | <b>20.2</b> | <b>51.2</b> | <b>27.7</b> | <b>16.5</b> |             |

### Discussion

Of particular interest to the authors were the data suggesting that the majority of nonmusicians reported they used music “daily” or “several times per week” while relaxing. From the viewpoint of a music therapist, the frequent use of music while relaxing is encouraging because the data suggest that nonmusicians may personally use music therapeutically. However, it may prove important to determine the kinds of activities or pursuits individuals engage in while relaxing. It would seem valuable to determine whether music is being purposefully used for relaxation (e.g., with progressive muscle relaxation, deep breathing, imagery) or employed as background to another activity.

Also of interest to us was the wide variety of music that participants stated they used while relaxing. Most frequently checked categories (in hierarchical order) were: Classical, easy listening, alternative, country, soundtrack, jazz, rock, pop, and rhythm and blues. When asked to list specific recordings or selections used while relaxing, the majority of participants (87% nonmusicians) wrote in a response(s). Listings of not only specific CD recordings and selections within those recordings, but groups and artists were common. Most frequently listed artists included: Kenny G, James Taylor, Sara McLachlan, Tim McGraw, Dave Matthews, and Enya. Soundtracks from such films as *Braveheart*, *Sleepless in Seattle*, *Sense and Sensibility*, *Medicine Man*, *Shine*, *Titanic*, *Phantom of the Opera* were consistently mentioned. There were well over 200 separately written responses to this particular question, reflecting quite a diversity of music preference. From these results and those obtained in the Byrnes (1996) study, we might conclude that music therapists involved in preparing a music listening/relaxation program may want to include music from an array of genres which reflects the musical tastes of clients from differing musical and cultural backgrounds.

Most selections were unfamiliar to the nonmusicians, yet most were regarded as relaxing. As the reader will remember, the music for this study was initially selected based on commercial claims of relaxation. In the study by Thaut and Davis (1993), music commercially available and composed specifically for the purpose of inducing relaxation was compared to patient-selected music for effects on state anxiety and perceived relaxation. Positive anxiety and relaxation responses were noted across the conditions, suggesting that commercial recordings composed specifically for relaxation

can be beneficial, as well as client-selected music, in achieving self-reported relaxation. Careful consideration of commercially available musical recordings with regard to slow tempi, softer sounds, consistent dynamics, certain instrumentation, and varying musical styles may aid in the preparation of a music listening/relaxation program. [It should be noted that of the 98 musical selections reviewed by the panel of experts, some CD recordings contained a *few* selections that were perceived as obviously unrelaxing, while other recordings contained *more than a few* selections that were not relaxing.] It would also seem important for music therapists to help clients recognize the musical elements that can contribute to perceptions of relaxation. By selecting and listening to appropriate recordings and discussing with clients (whether within a group or individual setting) the musical appropriateness of those recordings, the therapist can set the occasion for the client's ability to self-select music for relaxation based on personal preference and acquired knowledge.

Since only the first 1 1/2 minutes of each piece were used as the musical example, we caution the reader from making the assumption that the remaining minutes of a piece will continue to be perceived as relaxing. Some pieces would seem to be fairly consistent in style throughout. However, the "dynamics" of some pieces can change and vary considerably throughout the selection. As mentioned in the Wolfe and Woolsey study (2000), selecting music that is relaxing, yet is also able to mask surrounding sounds [e.g., hospital noises] seems to be a complex process. As stated by Wolfe and Woolsey:

The music would seem to need to contain qualities of a consistent dynamic level (minimal fluctuation in dynamic changes), contain some degree of musical complexity (e.g., full orchestral sound), be of a slower tempo, and possibly devoid of solo instrumentation. (p. 10)

These musical qualities may be important to consider when preparing a listening/relaxation program within a hospital setting. However, within less "noisy" environments, that is, within the confines of a quiet livingroom, qualities such as musical complexity and solo instrumentation may be less relevant. Further research in assessing the relaxing and masking qualities of music seems essential for providing effective music listening/relaxation programs for persons

within differing “sound environments” (i.e., therapeutic, work, and home settings).

In addition, the ability of listeners to control the volume of a musical selection would seem important in masking environmental sounds, and would address the concern for differences in amplitude preference among listeners. In a recent study by Staum and Brotons (2000), young adults showed overwhelming preferences for soft relaxation music in comparison to medium or loud. Males preferred loud music more than females, and musicians preferred softer music compared to nonmusicians. Many personal headset speakers contain control switches that allow the listener to readily change the volume level while listening, thereby allowing for the adaptation to surrounding sounds and for personal amplitude preferences.

We were intrigued by the similarity of ratings across the selections between the panel of experts and the nonmusicians, since many of the selections were classical in nature. Related studies dealing with adult musicians’ and nonmusicians’ perceptions of aesthetic experiences to music have consistently noted marked similarities in the responses of these two populations (Fredrickson, 2000; Madsen, 1997; Madsen, Byrnes, Capperella-Sheldon, & Britin, 1993; Madsen & Fredrickson, 1993; Nielsen, 1983). Further investigations may support “universal” characteristics that both musicians and nonmusicians associate with music considered to be relaxing.

Finally, when we examined the written responses permitting participants to list specific musical characteristics that enhanced and/or distracted from their perception of relaxation (see Table 5), more “enhancing” descriptors were listed for selection numbers 1, 2, 3, 4, 5, 7, 9, and 10. Words and phrases frequently listed to describe music perceived as relaxing included: “quiet,” “peaceful,” “soft,” “dreamy,” “soothing,” “serene,” “undramatic,” “low volume,” “slow speed (pace, tempo),” “regular rhythm,” “pleasant combination of instruments,” “strings (piano, clarinet) very relaxing.” More “distracting” descriptors were listed for selection numbers 6 and 8. These latter two selections were the ones also receiving the lowest mean ratings (least relaxing) for the nonmusicians. Common distracting descriptors listed by the nonmusicians included: “fast speed (tempo),” “too many changes,” “changes in volume and speed,” and “volume too low (had to strain to hear it).” One can also notice

from reviewing the percentages at the bottom of Table 5, the two selections the majority of nonmusicians reported they did not enjoy were, again, selection numbers 6 and 8. There would appear to be some consistency among the ratings of relaxation, the written responses to the selections, and perceptions of enjoyment to the 10 musical excerpts. In the study conducted by Stratton and Zalanowski (1984) investigating the effects of different types of music on relaxation, the single factor most highly correlated with relaxation was degree of preference for the music.

Responses obtained during a post-listening verbal processing segment of the session corresponded to participants' written responses. In response to the question, "What did you rate as highly relaxing?", participants identified low bass sounds, slow tempi, small numbers of instruments, and few changes (in tempo, volume, or instrumentation) as elements that enhanced their relaxation experience. With regard to the question, "What did you not rate as highly relaxing?", participants verbally stated that synthesized sounds, "depressing music," loud volume, and high-pitched instruments did not facilitate relaxation. Furthermore, some participants indicated that music used to enhance relaxation should match a person's musical taste and mood: "My relaxing music preference depends on my mood . . . like when you're down you want to listen to something that's sad and start from there." This kind of response seems to align with the concept of the *iso principle* frequently referred to in music therapy practice (Davis, Gfeller, & Thaut, 1999).

In conclusion, personal preferences for different musical styles, amplitude preferences, masking effects, knowledge of important musical characteristics, and consideration of varying sound environments should make us aware of the numerous variables that contribute to the complexity of selecting music for beneficial relaxation experiences. By being knowledgeable of current research findings and best clinical practices, and being creative in our professional preparations, we as music therapists can serve as specialists in providing auditory programs and therapeutic guidance that will assist our clients in effectively using music as an aid to relaxation.

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