Ethnicity, Music Experience, and Depression

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The researchers studied differences in self-reported music experience and depression across ethnic groups, as well as differences in the relationship between music experience and depression across groups. College participants (78 African Americans, 111 Asian Americans, 218 Whites, and 87 in other ethnic groups) completed the Music Experience Questionnaire (MEQ) and the Center for Epidemiological Studies Depression scale. Statistically significant differences across groups were found on depression as well as on the MEQ factor for Subjective/Physical Reactions to music and on MEQ scales for Commitment to Music, Affective Reactions, Positive Psychotropic Effects, and Reactive Musical Behavior. A distinctive pattern of relationship was found between music variables and depression in the Asian American group, relative to the White and Other group. In particular, among Asian Americans there were negative correlations between depression and the MEQ Subjective/Physical Reactions factor as well as the Affective Reactions scale. Implications were discussed for the literature on ethnicity and depression, music experience, and music therapy.

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Do the experience of music and its relationship with depression vary across ethnic groups? The answer to this question, which the present research explores with a sample in the United States, has implications for understandings of the place of music in people’s lives, for the practice of music therapy, and for the study of depression.

Ethnicity and Music Experience

Persons who wish to understand the place of music in people’s lives and its correlates would do well to consider cultural factors. Differences among cultures in musical preferences, in the nature of music performed, in instruments employed, and in the social and personal roles of music are often pronounced. Music not only reflects cultural diversity (Lornell, 2002; Richards, 1972) but also forms an element of intercultural exchange more broadly (Rodríguez, 1994). Thus, in pluralistic societies, despite the leveling effect of mass media and universal education, behavioral and experiential variations grounded in traditions, mores, and experiences over time may be anticipated to be evidenced in similarities and differences among groups in music behavior, the social construction of music, and music experience (Walker, 2004), as well as in the responses of group members to cultural commingling (Kimberlin & Euba, 1995). Of relevance to the psychology of music experience, one focus in the ethnomusicology literature has been the connection between music and cultural identity, especially to the experience of multiple identities as revealed or influenced by musical activities (Savaglio, 2004; Stokes, 1994).

In psychological research, attention to culture has followed many avenues, but a particular focus has been on ethnicity. An expanding literature has explored similarities and differences across ethnic groups in factors such as personality (Benet-Martínez & Karakitapoglu-Aygün, 2003; Goldberg, Sweeney, Merenda, & Hughes, 1998), affect (Aune & Aune, 1996; Sims, 2000) and clinical problems (Breslau et al., 2006; Hall, Bansal, &

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1 There have been numerous discussions of issues and complexities in the use of concepts such as “ethnicity,” and “race” in research in psychology (Helms, Jernigan, & Mascher, 2005; Okazaki and Sue, 1995; Phinney, 1996). For the purpose of the present report we use the term “ethnicity” to signify the aspect of diversity that we are studying.
Lopez, 1999; Tsai, Butcher, Muñoz, & Vitousek, 2001), as well as in interrelations among these factors (Benet-Martínez & Karakitapoglu-Aygun, 2003). Additionally, much has been written recently concerning ethnicity as a factor warranting attention in clinical treatment (Hwang, 2006; Santiago-Rivera, Arredondo, & Gallardo-Cooper, 2002; Sue, Ivey, & Pedersen, 1996).

Although there has been research on cultural factors in relation to perceptual and cognitive aspects of the processing of musical information (Walker, 1987), there has been limited research on similarities and differences across ethnic groups in the experience of music and in psychological reactions to music more broadly defined. In one relevant study, Gregory and Varney (1996), studying “western” and Indian students in England, concluded that these groups differed in the nature of their affective responses to music excerpts. Although this finding is suggestive, more extensive research on this topic is needed to compare additional ethnic groups and groups studied within another national setting. Additionally, because reactions to excerpts may not reflect music experience in the everyday contexts that are the backdrop for therapeutic use of music, assessment of reactions to music in general is needed.

Similarly, little has been written about ethnic factors of relevance to music therapy. Forrest (2000) discussed the application of a cultural perspective in music therapy, in particular in work with patients who have been diagnosed with terminal illnesses. With reference to the illustrative case of a terminally ill woman of Russian background living in Australia, Forrest discussed how music therapy helped this client to examine and reinforce her identity. Also of relevance is Henderson and Gladding’s (1998) paper on multicultural aspects of the integration of creative arts in counseling practice, which illustrated how aesthetically oriented counseling procedures may be situated within the broader context of the client’s ethnicity. However, it is noteworthy that most of the multicultural clinical work cited by Henderson and Gladding had used creative arts other than music.

Other authors have particularly emphasized the need for music therapists to learn about ethnic aspects of music experience and about how cultural factors can be used in music therapy. Moreno (1988) discussed the challenges for therapists implied by the diversity of musical genres and traditions across cultural groups,
stating that awareness and understanding of the musical traditions relevant to a particular client can contribute to the effectiveness of therapy. He pointed out that therapists have increasing access to diverse music, a trend that has been potentiated, since the publication of Moreno’s article, by the advent of online access to music. Therapists who take advantage of such opportunities to learn about diverse musical traditions can thus enhance their ability to engage in culturally competent music therapy. Sloss (1996) surveyed music therapists themselves about the role of cultural factors in their therapeutic work. Respondents in her Canadian sample described procedures and techniques that they employ. But respondents expressed concern that a more extensive body of research is needed to provide a foundation for such cross-cultural clinical work. The present study represents a step in responding to this concern.

Ethnicity and Depression

To provide a connection between music experience and therapeutic practice, from a multi-ethnic perspective, the present report examines how music experience relates to depression across ethnic groups. Dinges, Atlis, and Ragan (2000) have noted that “there appears to be empirical support for the presence of depression or depressivelike disorders among diverse human populations” (p. 624). However, there is evidence (for example, as reviewed by Tsai et al., 2001) suggesting at least some differences among ethnic groups in prevalence of depression and in mean levels of depression. One goal of the present research is thus to provide additional evidence concerning differences in levels of reported depression across ethnic groups.

A number of reviews have suggested that the relationship among depressive symptoms may differ across groups (Dinges et al., 2000; Mui, Burnette, & Chen, 2001; Tsai & Chentsova-Dutton, 2002), and the meaning or clinical presentation of depression may differ across groups as well (Wohl, Lesser, & Smith, 1997). Nonetheless, it appears that global scores representing a higher order factor of depression continue to be useful in representing the cumulation of symptoms comprising this construct (Mui et al., 2001).

When relationships between ethnicity and depressive symptoms have been found, subsequent analyses have explored factors accounting for them, in the hope of identifying potentially fruitful
avenues for intervention and prevention (Kirmayer, 2001; Okazaki, 1997). More broadly, issues in counseling with regard to depression have been discussed from multicultural perspectives, and with regard to specific groups (Hays & Iwamasa, 2006; Sue & Sue, 2003; Tompar-Tiu & Sustento-Seneriches, 1995). Additionally, ethnicity has been found to be a moderator of the relationship between situational stressors and depressive outcomes (Rickert, Wiemann, & Berenson, 2000). In this regard, similarities and differences across groups in the relationship between aspects of music experience and depression warrant study. Findings on this topic may inform, and thereby help to enhance the effectiveness of, music oriented treatment for depression across groups.

The Present Study

With this context in mind, the first goal of the present study was to provide additional evidence concerning similarities and differences across ethnic groups in the experience of music and in self-reports of depression. Our second goal was to compare the correlations between music experience scores and depression scores across ethnic groups. Much prior research on the experience of music has used laboratory procedures (Brim, 1978; Rickard, 2004) to gauge reactions to music. In the present study on ethnicity and music experience we used a self-report measure that was developed to represent in broad strokes the place of music in people’s lives.

Method

Participants

Data to be analyzed in this report came from two subsamples: (a) community college students the San Francisco Bay Area, whose data were analyzed without regard to ethnicity in an earlier study (Werner, Swope, & Heide, 2006), and (b) students at a four-year college in the midwest. Participants were recruited in undergraduate psychology classes, and were given extra credit for taking part in the research. Of the combined total of 506 participants, the sample to be analyzed (N = 494) represents the 97.6% who indicated their ethnicity. Of these, 351 (71.1%) were women and 143 (28.9%) were men. Mean age was 23.0 years.
The breakdown on ethnicity was as follows: 78 (15.8%) African Americans, 111 (22.5%) Asian Americans, 218 (44.1%) Whites, and 87 (17.6%) in other ethnic groups (indicated by checking Hispanic, Native American, Pacific Islander, Mixed, or Other on our background questionnaire), none of which had a sufficient sample size to be analyzed separately.

**Measures**

**Music Experience Questionnaire.** The Music Experience Questionnaire (MEQ; Werner et al., 2006) is comprised of 141 items, to which responses are given on a 5-point scale (1 = very untrue; 5 = very true). Items cover a wide range of topics pertaining to the place of music in a person’s life, whatever form of music one encounters, and represent content relevant to non-musicians as well as to musicians. The MEQ is scored for six scales, encompassing 53 items. These scales were developed on rational and theoretical grounds and, as set forth in our earlier report, were refined through statistical item analyses in our community college derivation sample aimed at increasing internal consistency and reducing inter-scale redundancy. The scales (as well as sample items) are as follows (Werner et al., p. 331):

1. **Commitment to Music,** the centrality of pursuit of musical experiences in the person’s life. (Sample item: It is important for me to see music being performed and not just hear it.)
2. **Innovative Musical Aptitude,** self-reports of musical performance ability as well as the ability to generate musical themes and works. (Sample item: People have applauded my performance of music.)
3. **Social Uplift,** the experience of being stirred and uplifted in a group-oriented manner by music. (Sample item: I wish my family had sung together more when I was growing up. [Reverse-scored])
4. **Affective Reactions,** affective and spiritual reactions to music. (Sample item: I love some kinds of music.)
5. **Positive Psychotropic Effects,** calming, energizing, integrating reactions. (Sample item: Music unites my mind and my body.)
6. **Reactive Musical Behavior,** motile reactions including humming and swaying, along with music. (Sample item: Certain music draws me strongly to dance.)
Alpha reliability coefficients for the MEQ’s scales in the data to be analyzed in the present report, broken down by ethnic group, are given in Table 1. Mean alphas over the scales were similar across groups. From the perspective of the scales, the Positive Psychotropic Effects Scale showed the highest reliabilities, and the Social Uplift scale showed weak reliability. With one exception, scores on all other scales had reliability coefficients of at least .70 in all groups. In a subsample of mixed ethnicity in our prior research (Werner et al., 2006) the six scales’ retest reliability coefficients were found to range from .60 to .74.

In addition to its scales, the MEQ is scored for two factors, based on findings replicated across two samples (Werner et al., 2006). These are (a) Subjective/Physical Reactions, which is defined by the following scales: Affective Reactions, Positive Psychotropic Effects, and Reactive Musical Behavior, all loading positively, and (b) Active Involvement, which is defined by the following scales: Commitment to Music, Innovative Musical Aptitude, Positive Psychotropic Effects, and Social Uplift, all loading positively.

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2 The factors underlying the MEQ’s scales were initially identified with data from the community college subsample. In preliminary analyses for the present report we conducted exploratory factor analysis with the four year college subsample. The factor structure obtained in this subsample was essentially identical to that obtained with the community college participants. Factor scores for this report therefore were computed using weights derived from a factor analysis of the MEQ in the combined sample.

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**Table 1**

<table>
<thead>
<tr>
<th>Scale</th>
<th>African American</th>
<th>Asian American</th>
<th>White</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Music Experience Questionnaire</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to Music</td>
<td>.63</td>
<td>.73</td>
<td>.78</td>
<td>.70</td>
</tr>
<tr>
<td>Innovative Musical Aptitude</td>
<td>.72</td>
<td>.74</td>
<td>.80</td>
<td>.75</td>
</tr>
<tr>
<td>Social Uplift</td>
<td>.47</td>
<td>.66</td>
<td>.54</td>
<td>.60</td>
</tr>
<tr>
<td>Affective Reactions</td>
<td>.78</td>
<td>.72</td>
<td>.73</td>
<td>.71</td>
</tr>
<tr>
<td>Positive Psychotropic Effects</td>
<td>.80</td>
<td>.88</td>
<td>.90</td>
<td>.89</td>
</tr>
<tr>
<td>Reactive Musical Behavior</td>
<td>.80</td>
<td>.78</td>
<td>.84</td>
<td>.80</td>
</tr>
<tr>
<td>CES Depression Scale</td>
<td>.86</td>
<td>.84</td>
<td>.91</td>
<td>.90</td>
</tr>
</tbody>
</table>

*Note.* Music Experience Questionnaire $n = 78$ African Americans, $111$ Asian Americans, $218$ Whites, and $87$ Others. CES Depression $n = 67$ African Americans, $97$ Asian Americans, $201$ Whites, and $66$ Others.
Center for Epidemiological Studies Depression Scale. The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) is a popular 20 item measure of depressive symptomatology. For each item, respondents indicate the extensiveness of their depressive experience during the past week (1 = rarely or none of the time [less than 1 day]; 4 = most or all of the time [5–7 days]). In the scoring process responses are recoded from 0 to 3; thus, total scores can range from 0 to 60, and a higher score indicates more depressive symptoms than a lower score. Scores on the CES-D have been found to have high internal consistency reliability, with alpha coefficients above .85 (Radloff, 1977; Skorikov & Vandervoort, 2003, Stansbury, Ried, & Velozo, 2006), as well as acceptable retest reliability (Radloff, 1977). The scale also has satisfactory and even substantial concurrent validity correlations with a variety of criteria indicating depression, including clinicians’ ratings and other questionnaire measures of depression (Shaver & Brennan, 1991; Skorikov & Vandervoort, 2003). Although there is some evidence that the factor structure underlying this measure may differ among ethnic groups (Tsai & Chentsova-Dutton, 2002), there is also an evidentiary basis for its use as a unidimensional measure of overall depression (Mui et al., 2001; Paniagua, 2001). Thus, the present report will work at the level of the widely used overall CES-D score, while acknowledging that questions remain concerning the dimensions of symptom clusters that comprise the higher order factor of depression, across ethnic groups. As shown in Table 1, scores on the CES-D had acceptable and similar alpha reliability coefficients in all groups.

Procedure

Students in the community college sample received their questionnaires in class, and were instructed to complete them at home and then return them to class. Students in the four year college sample completed their questionnaires in class.

Results

Comparison of Ethnic Groups’ Typical Scores

Group means on the study variables are shown in Table 2. Comparisons among groups’ typical scores were run using
TABLE 2
Means on the Study Variables, by Respondent Ethnicity

<table>
<thead>
<tr>
<th>Variable</th>
<th>African American</th>
<th>Asian American</th>
<th>White</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
<td>M (SD)</td>
</tr>
<tr>
<td><strong>MEQ Scales</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment to Music</td>
<td>2.28a (.74)</td>
<td>2.61b (.78)</td>
<td>2.49ab</td>
<td>2.58ab</td>
</tr>
<tr>
<td>Innovative Musical Aptitude</td>
<td>2.64a (.86)</td>
<td>2.78a (.75)</td>
<td>2.64a</td>
<td>2.75a</td>
</tr>
<tr>
<td>Social Uplift</td>
<td>2.89a (.85)</td>
<td>3.09a (.86)</td>
<td>3.02a</td>
<td>3.02a</td>
</tr>
<tr>
<td>Affective Reactions</td>
<td>3.97a (.73)</td>
<td>3.73b (.63)</td>
<td>4.31c</td>
<td>4.18bc</td>
</tr>
<tr>
<td>Positive Psychotropic Effects</td>
<td>3.26ab (.65)</td>
<td>3.19a (.71)</td>
<td>3.50c</td>
<td>3.50bc</td>
</tr>
<tr>
<td>Reactive Musical Behavior</td>
<td>3.95a (.75)</td>
<td>3.32b (.77)</td>
<td>4.07a</td>
<td>4.02a</td>
</tr>
<tr>
<td><strong>MEQ Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I: Subjective/Phys. Reactions</td>
<td>−0.11a (1.11)</td>
<td>−0.64b (.93)</td>
<td>0.35c</td>
<td>0.18ac</td>
</tr>
<tr>
<td>II: Active Involvement</td>
<td>−0.11a (.95)</td>
<td>0.14a (1.00)</td>
<td>−0.03a</td>
<td>0.10a</td>
</tr>
<tr>
<td>CES Depression Scale</td>
<td>19.04a (10.88)</td>
<td>18.30a (9.69)</td>
<td>15.00b</td>
<td>17.92a</td>
</tr>
</tbody>
</table>

Note. MEQ = Music Experience Questionnaire. CES = Center for Epidemiological Studies. Means in a row sharing a common superscript do not differ significantly (p < .05; Conover’s test). Music Experience Questionnaire ns = 78 African Americans, 111 Asian Americans, 218 Whites, and 87 Others. CES Depression ns = 67 African Americans, 97 Asian Americans, 201 Whites, and 66 Others.
Kruskal-Wallis tests followed by Conover’s (1980) pairwise comparison procedure. Statistically significant differences among groups were found on four MEQ scales: Commitment to Music \( (p < .05) \), Affective Reactions \( (p < .001) \), Positive Psychotropic Effects \( (p < .01) \), and Reactive Musical Behavior \( (p < .001) \). The post-hoc tests suggested the following differences among groups:

The Asian American group scored lower than all other groups on the Subjective/Physical Reactions factor as well as on two of its constituent scales, Affective Reactions and Reactive Musical Behaviors. This group additionally scored lower than Whites and Others on the factor’s Positive Psychotropic Effects scale and higher than African Americans on the Commitment to Music scale. Additionally, African Americans scored lower than Whites on the Subjective/Physical Reactions factor and on the constituent scales of Affective Reactions and Positive Psychotropic Effects.

A significant difference was found among groups on the CES Depression scale as well \( (p < .01) \). In the post-hoc tests, the White group was found to have a lower typical score than the African American, Asian American and Other groups.

**Ethnicity and the Relationship between MEQ Scores and Depression**

Correlations between the MEQ variables and CES Depression scores for the full sample and for members of the groups being compared are shown in Table 3. In the full sample, scores on the Subjective/Physical Reactions factor and on its constituent Affective Reactions scale were negatively but weakly associated with Depression scores. Additionally, scores on the MEQ Active Involvement factor and on its constituent scales for Commitment to Music and Social Uplift were positively but weakly associated with Depression scores.

3 Nonparametric tests were used in preference to an ANOVA approach because of greatly unequal sample sizes and heterogeneity of variance on some scales. Results of ANOVA followed by both Games-Howell tests and REGWF tests were essentially the same as the findings presented.

4 The White and Other groups had virtually identical means on the Positive Psychotropic Effects scale, but the White group’s mean was significantly different from that of the African American group whereas the Other’s was not. These seemingly incongruous results can be explained by the lower statistical power of the African American vs. Other comparison, relative to that of the African American vs. White comparison, due to the much lower number of cases in the Other group.
As shown in Table 3, correlations between each MEQ scale and Depression scores varied across groups around the result obtained in the full sample. Pairwise differences among groups’ correlations were analyzed by Z-tests, and these results also are shown in Table 3. Considering these results from the perspective of the groups, the most distinctive correlation patterns were found for the Asian American group and for the Other group. In the Asian American group, there were significant negative correlations between Depression and the MEQ Subjective/Physical Reactions factor as well as its constituent Affective Reactions scale, and these correlations were significantly different from the corresponding correlations in the White and Asian American groups. In the Other group, a significant positive correlation was found between Depression scores and the MEQ Positive Psychotropic Effects scale that was significantly higher than those in the African American and Asian American groups. Additionally, in the Other group the Commitment to Music scale and Active Involvement factor were significantly and positively associated with Depression scores.
Across scales, no differences were found between correlations in the African American group and those in either the Asian American or White group.

Discussion

The present study found differences among ethnic groups in reports of a number of aspects of music experience as well as in the correlations between music experience variables and depression. This finding adds to the literature suggesting that ethnicity is a factor warranting attention in understanding people’s behavior and experience. It also provides further evidence that ethnicity can serve as a moderator of the relationship between clinically relevant variables, in this case depression, and other psychological factors (Quintana, Troyano, & Taylor, 2001; Rickert et al., 2000). In particular, our results extend Moreno’s (1988) recommendation that music therapists seek greater awareness and understanding of musical traditions across cultures, by suggesting that music’s relationship to psychopathology and thus its potential role in treating psychopathology may vary across ethnic groups. In this sense, because the present results provide evidence that can help increase music therapists’ cultural competence, they serve as a step in responding to the expressed wish of the music therapists surveyed by Sloss (1996).

Our results suggest that ethnicity may be of more relevance to some realms of music experience than to others. Obtained differences among groups in music experience scores tended to cluster in the domain of the Subjective/Physical Reactions factor, and this result is consistent with Gross and John’s (1995) finding of ethnic differences in emotional expressivity. In our research, ethnic differences tended not to be seen in the domain of the Active Involvement factor. This latter result is consistent with the personality findings of Goldberg et al. (1998), who reported that ethnicity was very weakly associated with Big Five factors for Extraversion, Conscientiousness, and Intellect, as well as with Assertiveness, Sociability and Conscious Restraint variables from the Activity Vector Analysis system. However, because these authors did not present results of comparisons among the four non-Caucasian ethnic groups, the implications of their findings for interpretation of the present results are limited. In any case, the present findings suggest that ethnic differences in music
experience may pertain more to the areas of affective and experiential reactions to music than to areas having to do with performance and engagement in musical activities, and there is at least the suggestion that these differences may echo personality differences and similarities among groups.

The differences found on music experience scores were most often seen in comparisons involving the Asian American group. In interpreting this finding, three sets of prior results are relevant. First, Gregory and Varney (1996), studying “western” and Indian students in England, concluded that these groups differ in the nature of their affective responses to music excerpts. Second, there is evidence suggesting that Asian Americans, or perhaps Asian Americans of particular cultural backgrounds, view emotional expression as less appropriate than do members of other ethnic groups and that, in their self-reports, they may be particularly likely to hold back expression of emotions (Aune & Aune, 1996; Sims, 2000). Our results were consistent with these findings in that the MEQ scales and factor on which Asian Americans’ scores were lower than those of the other groups studied were those pertaining to emotional and physical reactions. Also relevant here is Tsai’s (2007) review of findings on cultural differences in music preferences and her discussion of their relationship to cultural differences in ideal affect. Tsai observed that Asians, in contrast to Americans, and Asian Americans, in contrast to White Americans, have been found to prefer calmer, slower, more relaxing, less energetic, and less exciting forms of music, in other words, forms of music that are less emotionally and physically stimulating. Third, and contrasting with the present music experience results, personality comparisons between Asian American and European American students reported by Benet-Martínez and Karakitapoglu-Aygün (2003) suggested differences on Big Five variables that might be associated with the MEQ’s Active Involvement factor, Extraversion, Conscientiousness, and Openness. Because two of the three significant Big Five differences obtained by Benet-Martínez and Karakitapoglu-Aygün involved comparisons between European Americans and first generation but not second generation Asian Americans, the variable of generation within the United States might be a useful one to consider in future research on ethnicity and music experience scores.
Additional differences that the present research found in reported music experience were between the White and African American groups, with Whites obtaining higher scores on the Subjective/Physical Reactions factor and on two of its constituent scales. This result runs counter to the finding that both expressiveness and aggressive responses are higher in African American than White adolescents (Socha & Diggs, 1999; Yager & Rotheram-Borus, 2000). Taken together these findings could imply that expressivity may be a factor in the decision to attend college or in acceptance into college, such that African American youth who are more expressive and White youth who are less expressive are underrepresented in a college setting. Alternatively, it is possible that the MEQ’s scales in this area, in focusing on music experience, are tapping a somewhat different facet of emotional expressivity than has been measured previously. Future research needs to explore this possibility.

Our finding of a relationship between depression score and ethnicity adds further data to a literature in which some view obtained differences as “striking” (Okazaki, 1997, p. 52) and others view these differences as insubstantial from both a clinical and a statistical perspective (Hall et al., 1999). In particular, a number of previous researchers have found Asian Americans to score higher than whites on depression (Aldwin & Greenberger, 1987; Okazaki, 1997), and our finding is consistent with this result. Juxtaposing this finding with the MEQ findings, we see that Asian Americans as a group reported weaker affective and physiological reactions to music conjoined with higher depression, whereas Whites reported stronger affective and physiological reactions to music conjoined with lower depression.

Prior results on differences between African Americans and Whites in depression paint a complex picture. For example, Haley et al. (1996), studying family caregivers of Alzheimer’s patients, found African Americans to report less depression than Whites. On the other hand, Oquendo et al. (2001), reanalyzing epidemiological data from the early 1980s, found African Americans and Whites to have equivalent one-year prevalence rates for depression. Results from a recent national survey (Williams et al., 2007) indicated that Blacks had lower lifetime prevalence but higher chronicity than Whites; additionally, Blacks’ mean reported level of depression severity was similar to
that of Whites. Adding to this literature, we found that African Americans scored higher than Whites on depression but lower than them on affective reactions to music.

Simultaneous consideration of our mean findings on depression and music experience for Asian Americans, African Americans, and Whites might lead to the speculation that affective and physiological reactions to music are negatively related to depression. However, our correlations suggest that this association is most notably found only among Asian Americans rather than across all groups studied. Building on these results, one may wonder whether, particularly with Asian Americans, treatments focused on influencing affective and physiological reactions to music will yield reductions in depression, or whether treatments oriented toward reducing depression will lead to increases in emotional and physiological reactivity to music. These possibilities might be tested in research within a clinical setting.

Another avenue for future research concerns the extent to which the mean differences obtained in our research, as well as the differences among correlations, result from actual differences in latent levels of music experience and actual differences in the relations among these music experiences and depression, rather than merely differences in the meaning of the assessment results across groups. In other words, results may have differed across groups because their members understand the MEQ’s items differently (for example, interpreting words differently), because they approach the task of responding to the MEQ’s items differently (for example, using different thresholds for reporting particular experiences), because the constructs underlying the MEQ scales are not the same across groups, or because their factor structure is not the same across groups. These and other technical issues in cross-cultural assessment have been the focus of a number of recent presentations (Allen & Walsh, 2000; Hambleton, 2005; Sireci, Patsula, & Hambleton, 2005), and we hope to explore them in future research on the MEQ with larger samples.

If future research does yield replicable differences among groups in the correlations among latent traits of depression and music experience, one frame for understanding these differences may be provided by the notion of “biological diversity” (Lin, 2001, p. 17), that is, of physiological differences among ethnic groups. Lin (2001), reviewing multicultural literature on physiological
correlates of depression, reported suggestive findings on ethnic differences. Although, as Lin warned, care should be exercised in stereotyping groups based on findings of “biological diversity,” this perspective nonetheless warrants attention. An alternative frame for conceptualizing these differences comes from analysis of cultural differences across ethnic groups. For example, Sue et al. (1996) urged counselors to particularly attend to cultural context and values, as lived and experienced by clients. Whatever frames are adopted by practitioners, the differences found in the present study, if replicated, may suggest ways of tailoring music-oriented interventions so as to facilitate treatment or prevention of depression in differing groups.

A number of limitations of the present study should be mentioned, all of which lead to directions for future research. The first of these concern the classification of respondents into ethnic groups. It is important to acknowledge that there are cultural differences within broad ethnic categories such as those used in our research. For example, the group here classified as Asian American was composed of respondents whose familial origins can be traced to varied countries in Asia and to varied cultural groups within those countries. Additionally, the “Other” group was not well defined, in part because it combined small numbers of participants representing a number of groups. Future research might address both of these limitations by recruiting a larger sample, which might be distinguished into additional concrete groups for analytic comparison.

The second set of limitations concerns our use of convenience samples. Participants in our research were college students in psychology classes, and our results thus may not generalize beyond such students. Future research on this topic would do well to expand data collection to ensure a sample more representative of the general population. Additionally, the great majority of our non-White respondents came from the San Francisco area community college sample and the great majority of our White respondents came from the Wisconsin four-year college sample. Virtually all students who were recruited did in fact participate, so this disparity appears to reflect differences in the distribution of ethnicity among students taking psychology courses in these two contexts. Moreover, we would expect the impact of this disparity to be seen in results when Whites were compared with members of
other ethnic groups, whereas our most striking findings involved comparisons of Asian Americans and other groups. Nonetheless, because in the present research ethnicity was related to both participants’ geographic region and their college level, it is recommended that future studies employ sampling procedures that allow analysis of ethnic differences controlling for or disentangling the effects of these associations. This might be accomplished within an academic context by gathering data at a single college having a highly diverse student body. Alternatively, in a study outside of the college context, it might be accomplished through use of a sampling strategy that explicitly takes into account not only ethnic diversity but geographical diversity as well.

A further limitation of the present research concerns our approach to measuring music experience. The MEQ was designed to assess reactions to music independent of the type of music encountered. Consequently, our research did not consider the possible impact on results of differences among groups in music preferences and listening choices. However, findings on the connection between preferences and affective reactions to music (Tsai, 2007) suggest that the relationship between both preferences and listening choices and scores on the MEQ across groups, needs to be explored in future research. Despite these limitations, the present results suggest the value of continued study of ethnicity in relation to the reported role of music in people’s lives and in relation to the concomitants of music experience.

References


