THE ISSUE IS…

Is Reporting Race and Ethnicity Essential to Occupational Therapy Evidence?

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In 2017, the American Occupational Therapy Association (AOTA) will reach its centennial. As the profession moves toward this momentous milestone, a new vision for occupational therapy has emerged. AOTA’s Centennial Vision of occupational therapy as being “a powerful, widely recognized, science-driven, and evidence-based profession with a globally connected and diverse workforce meeting society’s occupational needs” offers many opportunities and challenges (AOTA, 2007, p. 613). One key component of the Centennial Vision is AOTA’s emphasis on the implementation of evidence-based practice (EBP) among its practitioners.

According to Lin, Murphy, and Robinson (2010), EBP is a priority for occupational therapy and other health professions because clinicians are now more accountable for the services they provide and are under great pressure to justify their services to third-party payers. To aid clinicians, AOTA has created resources such as OT Search, the Evidence Brief Series, the Occupational Therapy Practice Guidelines Series, and the EBP Resource Directory to ensure that clinicians have access to the most up-to-date and clinically relevant evidence (Lin et al., 2010).

To promote the development of comprehensive resources to support EBP, occupational therapy professionals must take care to ensure that the research evidence that is emerging and being transferred to practicing clinicians is of the highest quality. Systematic appraisals of the available evidence should describe how well the findings support practitioners in their clinical settings and are applicable to the patient populations they serve. EBP requires the use of treatment approaches that are the best available not only on the basis of the clinician’s expertise but also in keeping with the client’s preferences and evidence of the treatment’s effectiveness for members of the client’s specific background (Hill-Briggs, Kelly, & Ewing, 2010). Because AOTA emphasizes EBP, researchers and clinicians alike must consider the great diversity (e.g., in race and ethnicity, socioeconomic status [SES], class) that exists in society and the need to recognize this diversity during the delivery of services.

Participant race and ethnicity, however, are two key variables frequently missing in occupational therapy research studies. Race has been operationalized as “the category to which others assign individuals on the basis of physical characteristics, such as skin color or hair type, and the generalizations and stereotypes made as a result” and ethnicity as “the group mores and practices of one’s culture of origin” (American Psychological Association [APA], 2003, p. 380). The fact that studies published in occupational therapy journals do not consistently report the race and ethnicity of the participants (e.g., Cena, McGruder, & Tomlin, 2002) leads one to question whether reporting race and

KEY WORDS
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ethnicity is essential to occupational therapy evidence.

Importance of Race and Ethnicity
To determine whether reporting race and ethnicity is essential in occupational therapy research, one must first consider why race and ethnicity matter. The literature describing general health and health disparities has strongly suggested that race and ethnicity do matter, and for several reasons. Race and ethnicity are associated with biological factors and social determinants that contribute to health-related outcomes (Corbie-Smith, Henderson, Blumenthal, Dorrance, & Estroff, 2008). Several diseases, disorders, and conditions affect racial and ethnic groups differently (Agency for Healthcare Research and Quality [AHRQ], 2010). For example, people from certain racial and ethnic backgrounds are at higher risk for many chronic conditions (e.g., stroke, psychiatric disorders, and systemic lupus erythematosus in African-Americans) and are disproportionately represented among the patients seen for rehabilitation (Hill-Briggs et al., 2010). Moreover, race and ethnicity are interrelated with other sociodemographic variables that influence access to care and consequently health-related outcomes. For example, race and ethnicity are highly correlated with SES (AHRQ, 2010; Richardson & Norris, 2010). Consequently, members of racial and ethnic groups with a lower-than-average SES are less likely than members of higher SES groups to have health insurance, a usual source of care, and access to quality care (AHRQ, 2010), contributing to the longstanding and persistent racial and ethnic disparities in health-related outcomes (National Center for Health Statistics, 2009).

Many health professions strongly recommend the reporting of participants’ race and ethnicity in research. The APA (2010) style guidelines indicate that race and ethnicity are part of the minimum adequate reporting standards:

- Detail the sample’s major demographic characteristics, such as age; sex; ethnic and/or racial group; level of education; socio-economic, generational, or immigrant status; disability status; sexual orientation; gender identity; and language preference as well as important topic-specific characteristics (e.g., achievement level in studies of educational interventions). . . . Even when a characteristic is not used in analysis of the data, reporting it may give the readers a more complete understanding of the sample and the generalizability of results and may prove useful in meta-analytic studies that incorporate the article’s results. (pp. 29–30)

Some clinical disciplines, such as pediatric physicians, rheumatology, and genetics, have instituted the requirement of consistent reporting of race and ethnicity in their scientific publications to facilitate the examination of racial and ethnic differences in outcomes (American Academy of Pediatrics, Committee on Research, 2000; Lee & Kavanaugh, 2004; O’Loughlin, Dugas, Maximova, & Kishchuk, 2006; Sankar, Cho, & Mountain, 2007). More important, the National Institutes of Health (NIH; 2002) has mandated the inclusion of women and members of racial and ethnic minorities in federally funded research studies since Congress passed the National Institutes of Health Revitalization Act of 1993. This mandate ensures that women and minorities are included in clinical research, is consistent with the ethical principle of justice, and highlights the importance of balancing research burdens and benefits. In addition, many reporting agencies, including the U.S. Census Bureau (2010), have moved toward collecting data on both race and ethnicity as key demographic variables.

Status of Reporting on Race and Ethnicity
Several articles in the American Journal of Occupational Therapy (AJOT) have addressed the lack of reporting of participant race and ethnicity (Cena et al., 2002; Evans, 1992; Hasselkus, 2002). For example, Cena et al. (2002) reviewed 145 articles that included case descriptions for 225 study participants in AJOT from 1975 to 1998 to determine the percentage reporting race, ethnicity, and SES data. They found that race and ethnicity data were provided for only 35 of 225 participants (15%).

We examined more recently published research in AJOT from 2000 through 2008 to ascertain what proportion reported participant race and ethnicity. The authors and three graduate students independently reviewed the full text of participant-oriented research articles published in Volumes 54–62 of AJOT. We excluded from the review editorials, letters to the editor, departments (e.g., Brief Reports, The Issue Is), literature reviews, meta-analyses, and articles with occupational therapists, occupational therapy assistants, or occupational therapy students as the primary participants (i.e., related to their knowledge or perceptions, practice or education patterns, or professionalism). We managed the data using Excel and achieved consensus when we encountered discrepancies in categorization.

We identified 342 participant-based research articles published in AJOT from 2000–2008 that met the inclusion criteria. Of these, 118 articles (34.5%) reported race and ethnicity (Table 1). Of the total participant base of 54,701, race and ethnicity were reported for 13,666 participants (25.0%). Although ours is not the first examination of race and ethnicity reporting in occupational therapy, it is the first to consider race and ethnicity data as the primary demographic variables of interest without making assumptions about unreported data.

Discussion and Future Directions
Limited and inconsistent reporting of race and ethnicity in occupational therapy research suggests that race and ethnicity are unimportant. Findings from national studies, however, have suggested that occupational performance disparities exist for recipients of occupational therapy services by race and ethnicity and income level (Bass-Haugen, 2009). Such disparities potentially affect not only occupational therapy research and clinical practice approaches but also the development of clinical assessment tools, performance on
standardized tests, and the generalizability of intervention effects and outcomes.

Inconsistent reporting of race and ethnicity in occupational therapy research may thus be limiting our ability to achieve AOTA’s Centennial Vision of being a science-driven and evidence-based profession focused on meeting the needs of our diverse society. The practice of evidence-based occupational therapy can emerge only if high-quality research findings consistently consider all potential influences on observed outcomes. Although the sociodemographic factors affecting health-related outcomes have been studied extensively, it is unclear whether the field of occupational therapy has responded appropriately to the need to provide culturally appropriate care to people who frequent rehabilitation settings (Hill-Briggs et al., 2010). Unless occupational therapy researchers report data on race and ethnicity, we cannot know how these factors affect the outcomes of occupational therapy treatments for specific disease processes, or even whether participants from racial and ethnic minorities were included in reported studies.

Reporting race and ethnicity data provides a more complete description of occupational therapy research participants, which in turn enhances our ability to provide patient-centered services to a diverse and ever-changing population. In addition, reporting race and ethnicity closes a serious gap in the body of evidence currently guiding EBP in occupational therapy. Researchers will be able to measure racial and ethnic differences as potential contributors to study outcomes (Ellis, 2009), and practitioners will be better able to determine whether the reported findings are applicable to specific racial and ethnic population groups or to all populations. Finally, using a diversity-sensitive approach to EBP will enhance outcomes for all populations and help close racial and ethnic disparities in health and rehabilitation outcomes (Ellis, Brelad, & Egede, 2008; Institute of Medicine, Committee on Understanding and Eliminating Racial and Ethnic Disparities in Health Care, 2003).

To link education, research, and practice as outlined by AOTA’s strategic direction, we recommend that occupational therapy researchers report race and ethnicity for the following reasons:

- To be consistent with APA (2010) guidelines for the reporting of race and ethnicity of the participants of all research studies.
- To fulfill the Accreditation Council for Occupational Therapy Education’s (ACOTE’s) (2007) Standard B.8 related to research.
- To facilitate cross-validation of both research tools and research findings across racial and ethnic groups. According to ACOTE Standard B.4.0, the processes for screening, evaluation, and referral as related to occupational performance and participation must be culturally relevant and based on theoretical perspectives, models of practice, frames of reference, and available evidence (ACOTE, 2007). This standard suggests that models of practice, frames of reference, and available evidence that determine approaches for screening, evaluation, and referral are incomplete in the absence of consistent consideration of race and ethnicity in research findings.
- To reduce the gap between science and clinical practice based on race and ethnicity. Consistent reporting of race and ethnicity will result in improved quality of care and services delivered to people from all backgrounds and will provide clear evidence of whether the results of studies apply to people from all racial and ethnic backgrounds (Rodakowski, Kelly, & Gould, 2010; Smyth, 2011).

We also encourage occupational therapy researchers to adhere to NIH policy and guidelines on the inclusion of women and members of racial and ethnic minorities as participants in clinical research. Authors should follow this policy for all patient-oriented research (funded, nonfunded, prospective, and retrospective).

In addition, we recommend that clinicians and students integrate developing evidence into clinical practice and education in the following ways:

- Review and consider the composition of the standardization sample of an assessment and its appropriateness for the population being treated (Hernandez, Horin, Donoso, & Saul, 2010).
- Understand that considerable heterogeneity exists among members of each racial and ethnic group and that clinical practice should be influenced by such diversity. ACOTE (2007) Standard B.1.7 requires students to demonstrate knowledge and appreciation of the role of sociocultural, socioeconomic, and diversity factors and lifestyle choices in contemporary society (e.g., principles of psychology, sociology, and abnormal psychology); they can do this only if the supporting evidence is found in the occupational therapy literature.

We recognize that in addition to race and ethnicity, other critical variables should be considered in research and clinical practice. For instance, SES is a key variable that includes a range of interrelated variables such as income, access to health insurance, education, and access to care (Asch et al., 2006; Bernheim, Ross, Krumholz, & Bradley, 2008; Fiscella, Franks, Gold, & Clancy, 2000; Franks et al., 2003; Hoedtke & Hoedtke, 2000). Although the specific mechanism by which SES influences health and health-related outcomes is not entirely known, Adler and Ostrove (1999) noted that more advantaged people are more likely to experience better health; thus, SES is important to health-related outcomes. Of greater concern is the apparently strong link between

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### Table 1. Articles in the American Journal of Occupational Therapy Reporting Race and Ethnicity, 2000–2008

<table>
<thead>
<tr>
<th>Findings</th>
<th>Race and Ethnicity Reported</th>
<th>Total</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Articles describing participant-based research</td>
<td></td>
<td>342</td>
<td>118</td>
<td>34.5</td>
</tr>
<tr>
<td>Participants</td>
<td></td>
<td>54,701</td>
<td>13,866</td>
<td>25.0</td>
</tr>
</tbody>
</table>

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childhood and adolescent SES and adult health outcomes (Cohen, Janicki-Deverts, Chen, & Matthews, 2010). Unfortunately, like race and ethnicity, SES is not commonly reported, even though its impact on occupational therapy outcomes may be tremendous. Other variables that may be relevant to occupational therapy outcomes include trust, lack of concordance in patient–provider communication styles, health literacy, and health beliefs and attitudes.

Conclusion

The limited emergence of occupational therapy investigations of differences associated with race and ethnicity in intervention outcomes is among the opportunities and challenges of the profession. The issue is and remains whether consistent reporting of race and ethnicity in all occupational therapy research studies should be required. We believe that reporting race and ethnicity in occupational therapy studies is essential to enhance research outcomes and ultimately develop a body of evidence that will guide clinical practice for all clients, regardless of race and ethnicity. The consistent inclusion of race and ethnicity of the participants of occupational therapy research studies is one small step toward the development of a body of knowledge that is both comprehensive and complete. Such information will ensure that the evidence that supports the practice of occupational therapy clinicians meets the highest standards for evidence-based practice. ▲

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References


