



Theses and Dissertations

2018-07-01

A Content Analysis of the Journal of Adolescent Health: Using Past Literature to Guide Healthcare Research of US Ethnic Minority Adolescents

Kate Amanda Handy
Brigham Young University

Follow this and additional works at: <https://scholarsarchive.byu.edu/etd>



Part of the [Social and Behavioral Sciences Commons](#)

BYU ScholarsArchive Citation

Handy, Kate Amanda, "A Content Analysis of the Journal of Adolescent Health: Using Past Literature to Guide Healthcare Research of US Ethnic Minority Adolescents" (2018). *Theses and Dissertations*. 7450. <https://scholarsarchive.byu.edu/etd/7450>

This Thesis is brought to you for free and open access by BYU ScholarsArchive. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of BYU ScholarsArchive. For more information, please contact ellen_amatangelo@byu.edu.

A Content Analysis of the *Journal of Adolescent Health*: Using
Past Literature to Guide Healthcare Research of
US Ethnic Minority Adolescents

Kate Amanda Sheffield Handy

A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of
Master of Science

Roy A. Bean, Chair
Richard B. Miller
Jeremy B. Yorgason

School of Family Life
Brigham Young University

Copyright © 2018 Kate Amanda Sheffield Handy

All Rights Reserved

ABSTRACT

A Content Analysis of the *Journal of Adolescent Health*: Using Past Literature to Guide Healthcare Research of US Ethnic Minority Adolescents

Kate Amanda Sheffield Handy
School of Family Life, BYU
Master of Science

Ethnic minority research in the U.S. is important given the increase in ethnic minority populations, particularly within the adolescent population. Content analyses are useful in guiding researchers as they document representation and progress of research on ethnic minorities within many fields, including healthcare. The *Journal of Adolescent Health* was coded for the following variables: Ethnic minority focus, article topic, article funding by topic, geographic location of sample, and inclusion of measures (ethnic identity and acculturation). The results indicated that the percentage of published articles focused on each specific ethnic minority group were lower than the current U. S. percentages, including Latinos (3.7% of the published articles versus 17.8% of the U. S. population), African Americans (5.8% versus 13.3%), Asian Americans (0.6% versus 5.9%) and Native Americans (0.5% versus 1.3%). Over the 28-year period, the *Journal of Adolescent Health* increased in the number of ethnic minority focused articles published per year, but in relation to the yearly article output decreased in actual percentage of ethnic minority focused articles per year (5.7% decrease in percentage of ethnic minority focused articles published).

Keywords: content analysis, ethnic minorities, adolescence, healthcare

TABLE OF CONTENTS

ABSTRACT	ii
A Content Analysis of the <i>Journal of Adolescent Health</i> : Using Past Literature to Guide Healthcare Research of US Ethnic Minority Adolescents	
Healthcare Research of US Ethnic Minority Adolescents	1
Literature Review.....	4
Rationale for More Ethnic Minority Focused Research	4
Healthcare Research	5
Adolescent Ethnic Minorities	6
Summary.....	7
Methods.....	8
Results.....	10
1. How Many Minority-Focused Articles Were There for Each Ethnic Group?.....	10
2. Was There a Change (Across Time) in the Percentage of Articles Focused on Ethnic Groups?	11
3. What Were the Most Frequently Studied Topics for Each Ethnic Group?.....	12
4. What Topics Were the Most Frequently Funded for Each Ethnic Group?.....	14
5. What Were the Primary Geographical Locations for Samples?	15
6. What Were the Primary Settings (Urban, Rural, Mixed, Etc.)?	16
7. Out of the Focused Articles, How Many Contained a Measure of Ethnic Identity and/or Acculturation?	17
Discussion.....	18
How Many Minority-Focused Articles Were There for Each Ethnic Group	18
Change Across Time in Percentage of Articles Focused on Ethnic Groups	20

Most Frequently Studied Topics for Each Ethnic Group	20
Most Frequently Funded Topics for Each Ethnic Group.....	22
Primary Geographical Locations for Samples	23
Measures of Ethnic identity and/or Acculturation in Ethnic Minority Focused Articles	24
Limitations	25
Conclusion	26
References.....	27
Appendix.....	37
Table 1 - <i>Frequency of Article Type by Ethnic Group for Journals Combined: n (%)</i>	37
Figure 1 - <i>Minority Focused Articles by Year</i>	38
Table 2 - <i>Most Frequently Studied Topics by Ethnic Group: n (%)</i>	39
Table 3 - <i>Top Funded Subjects by Ethnic Group, Frequency: n (%)</i>	40

A Content Analysis of the *Journal of Adolescent Health*: Using
Past Literature to Guide Healthcare Research
of US Ethnic Minority Adolescents

Ethnic minority groups are a large (and growing) part of the United States population and, as such, should receive approximate representation in healthcare and social science research literatures. Recent reports from the census bureau suggest that ethnic minorities will outnumber white, European Americans in the United States in less than 20 years (United States Census Bureau, 2012). In fact, immigrant youth – children under the age of eighteen who are either foreign-born or born in the U.S. to immigrant parents – made up one-fourth of the nation's 75 million children, and are expected to be one-third of the U.S. youth by 2050 (Passel, 2011).

While ethnic minorities make up an increasingly large proportion of the United States population, they have not been a representative part of most research samples or the scholarly literature as a whole. The primary research disadvantages associated with this underrepresentation are: (a) minimal generalizability for the majority of the research findings because so many studies have been conducted with European American samples without replication among ethnic minorities, and (b) continued application (or mis-application) of under-validated treatment options for ethnic minorities (Garber & Arnold, 2006). Researchers, policy makers, and clinicians have addressed the impact ethnicity and race have on health care outcomes, including access to health care and quality of health care (Centers for Disease Control and Prevention [CDC], 1993; International Committee of Medical Journal Editors, 2010; Interian, Lewis-Fernández & Dixon, 2013; Mir et al., 2012). Given the historical underrepresentation of certain ethnic groups, the high impact of ethnicity and race on health care outcomes points to concerns regarding cross-cultural validity (Drevdahl et al., 2006; Institute of Medicine [IOM],

2009; Interian, Lewis-Fernández & Dixon, 2013; Kahn, 2003; National Partnership for Action to End Health Disparities, 2011). Cultural differences may, in part, contribute to the ethnic differences in health outcomes. For instance, U. S. ethnic minority youth are at a higher risk of experiencing healthcare and behavioral problems than their European American counterparts (Biello, Niccolai, Kershaw, Haiquin & Ickovics, 2013; Blanco-Oilar, 2009; Budhwani, 2013; Cheref, Lane, Polanco-Roman, Gadol & Miranda, 2015; Sionean et al., 2014; Sutton & Parks, 2013) in terms of sexual risk (Biello et al. 2013), suicidality (Cheref et al., 2015), crime levels (Blanco-Oilar, 2009), depression (Budhwani, 2013), disrupted social networks, incarceration (Sutton & Parks, 2013), and sexually transmitted infections (Sionean et al., 2014). Empirically-supported treatment options are crucial for ethnic minority youth because they are often at a higher risk while, simultaneously, having less access to necessary mental and health care (Le Meyer, Zane, Cho & Takeuchi, 2009; Sutton & Parks, 2013; Sutton & Parks, 2013; U.S. Department of Health and Human Services Office of Minority Health, 2016).

Although there has been a historical under-representation, a growing number of studies are researching culturally relevant topics and/or specific ethnic minority populations. As recent examples, article topics include health disparities across racial and ethnic groups (Allen, McNeely, & Orme, 2016), the impact of acculturation on access to healthcare (Haderxhanaj et al., 2014) and ethnic differences in treatment initiation and retention (Campbell, Weisner, & Sterling, 2006). This increased attention to minority populations has been noted in journals representing fields such as medicine (Sankar, Cho & Mountain, 2007), psychiatry (Mak, Law, Alvidez & Pérez-Stable, 2007), counseling psychology (Lee, Rosen & Burns, 2013), family science (Bean, Crane & Lewis, 2002), and healthcare (Moscou, 2008).

While it seems that there has been a recent increase in research articles focused on ethnic minorities in the social science and healthcare fields (Interian, Lewis-Fernández & Dixon, 2013; Lau, Chang & Okazaki, 2010; Liu et al., 2012), it is clearly important to confirm and understand this trend through additional documentation and analysis. As a relevant analytic method, content analyses can be used to identify trends over time (Daniels, Spero, Leonard & Schimmel, 2015) and evaluate primary research topics (such as ethnic focus) and their relative importance in a given field (Buboltz, Deemer & Hoffman, 2010). In addition, content analyses are particularly useful in identifying topics that are not being addressed in the published research (Wong, Steinfeldt, Speight & Hickman, 2010).

As the focus of this study, it is particularly important to analyze the healthcare literature because of expansive and ever-growing healthcare costs in the United States. For example, \$3.2 trillion dollars were spent on healthcare in the United States last year, accounting for 17.8 percent of the U. S. Gross Domestic Product, reaching an average yearly expense of \$9,990 per American (National Health Expenditure Data, 2015). These high healthcare expenditures coupled with ethnic minority population growth projections require continued (and, perhaps, even greater) rates of ethnic minority inclusion in the professional healthcare research. A content analysis of the research devoted to healthcare is an important step in discovering the degree to which ethnic minorities are represented in the literature and how they are being studied. Towards that end, this content analysis was designed in order to document the quantity and quality of ethnicity-focused articles in one of the most prominent adolescent health journals – the *Journal of Adolescent Health*. This journal was selected given that very few studies have cataloged the healthcare professions with attention to ethnic minority group inclusion (as an exception, see Lewis-Fernández et al., 2013), and none were found to focus on adolescents specifically.

Literature Review

Across almost all areas of social and medical science, there is a long-standing call to increase the level of inclusion and, more importantly, understanding of U.S. ethnic minorities. A complete review of all such “calls” is beyond the scope of this manuscript; however, information regarding the following is included here: (a) the primary rationale for these calls for inclusion; (b) relevant findings from the field of healthcare research; and (c) the pertinent findings from the adolescent development discipline.

Rationale for More Ethnic Minority Focused Research

In 1994, the National Institute of Health recommended (and began to require in grant proposals) increased research attention to ethnic minority research populations (National Institutes of Health (NIH), 1994). In 2006, the NIH issued an update to promote increased representation of minorities in order to have greater generalizability of research findings (Garber & Arnold, 2006). Additionally, professionals in the healthcare field called for the quality of research on ethnic minorities to improve, indicating that the research community has an obligation to rectify racial health disparities (Moscou, 2008).

Prompted by the 1994 NIH call for action (as well as countless others), researchers have responded by increasing their research attention to ethnic minority groups. For example, Delgado-Romero, Galván, Maschino, and Rowland (2005) documented increased reporting of ethnic and racial characteristics between 1990 and 1999 in the *Journal of Counseling and Development*, *Journal of Counseling Psychology*, and *The Counseling Psychologist*. In 1990, only 26% of the empirical articles they examined reported ethnicity or race. By 1993, the proportion had increased to 53% of articles and, by 1999, 85% of the empirical articles they studied included a report of the sample’s ethnicity or race. Bean, Crane and Lewis (2002), in

their content analysis of the most prominent family science journals, found that 15.8% of articles were focused on ethnic minority groups, and that ethnic focused articles increased from an average rate of 11.9% (1984-89) to 19.2% (1990-1997). Additionally, studies in the field of psychology also noted an increased number of articles focused on U. S. ethnic groups (Blancher, Buboltz & Soper, 2010; Hartmann et al., 2013; Inman, Devdas, Spektor & Pendse, 2014).

While these and other studies have suggested that there is an increase in ethnic focused research articles, further cataloging and analysis should be done for other important scholarly disciplines. European Americans are still the dominant represented group in research literature (Cundiff, 2012; Hall & Maramba, 2001; Knerr, Wayman & Bonham, 2011). In addition, Knerr, Wayman and Bonham (2011) explored the inclusion of research subjects with diverse ethnic backgrounds and found that researchers' use of racial and ethnic terms are likely restricted in that they may not capture the full diversity of racial and ethnic groups. Further, the article found that, while the National Institute of Health's Inclusion and Policy Guidelines strive to motivate inclusion of minorities, their guidelines are not strongly enforced and are often only considered as an afterthought.

Healthcare Research

In the specific case of healthcare, numerous articles have been written emphasizing the importance of studying cultural, racial and ethnic topics (e.g., Bagchi, Af Ursin & Leonard, 2012; Butler et al., 2016; Marrast, Himmelstein & Woolhandler, 2016), but few very studies (content analyses or otherwise) have been conducted to document disciplinary progress (as exceptions, see Case 2002; Lewis-Fernández et al., 2013). In form of a doctoral dissertation, Case (2002) examined the extent to which the healthcare field included and focused on racial and ethnic minorities in its professional research. Between 1995 and 1999, fifteen health care

journals (representing medicine, nursing, behavioral medicine, psychiatry, and psychology) were examined for the ethnic composition of each empirical article. The findings indicated that 5.8% of the articles focused on ethnic minorities, with only 3.9% focusing on solely ethnic minorities. Further, this study found that health care research appears to under-represent Latinos, which is especially significant given the fact that they, at the time of the study, were the fastest growing ethnic group in the United States.

In a recent and more comprehensive content analysis, Lewis-Fernández et al. (2013) highlighted the importance of including sample information regarding race, ethnicity, and culture (REC) in health research. The analysis examined 1,205 publications (2000-2002) across seven prominent psychiatry journals, finding that reporting in health research publications has been unsystematic, with little or no justification for including or omitting REC information. REC terms varied in inclusion by journal, ranging from a high of 18.7% in the *Journal of Nervous and Mental Disease* to a low of 2.3% in the *Biological Psychiatry*. Using a subsample of 30 REC-focused articles that were randomly selected from each of the seven journals, they found that 13.3% of the articles used at least one REC term in the title or the abstract, and that 13.3% gave a rationale (in terms of REC factors) for the study question/design. Overall, this article highlighted the increasing importance of including information about race, ethnicity and culture in healthcare (particularly psychiatric healthcare) research, although it did not specifically address their inclusion in adolescent-focused research.

Adolescent Ethnic Minorities

As a group, adolescents are increasingly ethnically diverse due to higher immigration rates among non-European American ethnic groups and higher birth rates among ethnic minorities (Colby & Ortman, 2015). This is noteworthy because ethnic minority adolescents are

subject to varying challenges associated with their marginalized status, including poverty (Eamon, 2001), high crime levels in their communities (Blanco-Oilar, 2009), and discrimination (Richardson et al., 2015).

In recent years, two content analyses have been conducted to calculate the focus of ethnic minorities in adolescent journals (Bean, Lefrandt, Gilliland, Lee & Miller, 2016; Levesque, 2007). Levesque (2007) examined ethnic focus in six of the leading adolescent development journals to determine the extent to which they included racial and ethnic dimensions. Over a thousand articles were analyzed (1283 articles), with 40% reporting findings from non-U.S. samples. Levesque found that 93% of the articles published between 2000 and 2006 reported the ethnicity of participants, with 87% providing the actual percentage of at least one ethnic group rather than lumping groups together into general “other” categories. Additionally, 25% of the articles were found to focus on ethnic topics.

In the other content analysis, Bean et al. (2016) 2,598 articles were coded for degree of ethnic focus (race, ethnicity or culture had to be listed in the title, abstract or indexed keywords). Among the relevant findings are the following: a) 25.1% of articles were focused on ethnicity, b) yearly increases in the number of ethnically focused articles were between 3% and 9.5%, and c) the majority of articles utilized assessment measures that had not been previously verified as being reliable or valid for the ethnic minority groups that they studied.

Summary

While ethnicity-focused content analyses have been conducted in adolescent development journals and in certain healthcare journals, no studies were found cataloging adolescent health research and its attention to U. S. ethnic minorities. Therefore, in order to address this intersection (adolescent health outcomes) and document the level of ethnic focus, the

aim of this article was to conduct a content analysis of the last 28 years (1990 to 2017) of the *Journal of Adolescent Health*.

Methods

Following the example of numerous other researchers who have used content analyses to analyze important topics in their respective fields ((Arredondo, Rosen, Rice, Perez & Tovar-Gamero, 2005; Baker, Bowen, Butler & Shavers, 2013; Nilsson, Love, Taylor & Slusher, 2007), the present content analysis provides a status report on the representation of ethnic minorities in the *Journal of Adolescent Health* from 1990 to 2017. The *Journal of Adolescent Health* was selected for inclusion in this content analysis because of its: (a) multidisciplinary emphasis (it publishes articles from behavioral and biological sciences, and public policy and health); (b) prominence and respectability (highest ranked non-clinical adolescent journal, high one-year impact factor (4.098) and high five-year impact factor (4.147) in the ISI Web of KnowledgeSM Journal Citation Report); and (c) primary use of U. S.-based samples (given the study's concentration on ethnic diversity within the United States). Finally, the journal regularly publishes a large number of articles (111 articles per year, 2907 articles across 26 years), offering a large sample size to analyze in evaluating professional research strengths and weaknesses.

Each article in the *Journal of Adolescent Health* was coded independently by two students, with any incongruence in the students' coding resolved by advanced coders (the first author functioned in this role). Students were trained using the following procedure: (a) enrollment in an upper division research practicum (after fulfilling prerequisites, including a research methods course); (b) weekly supervision and instruction on coding procedures; (c) tests of knowledge of coding procedure; (d) successful completion of twenty practice articles; and (e)

regular attendance at quality control meetings. The two coders worked independently from one another and their responses were compared to determine inter-rater reliability. The inter-rater reliability was found to be 91.6%. Advanced-level coders flagged any incongruence in coding and negotiated them until congruent. Qualification for advanced coders included completion of a two-month training program, which included practice articles, quizzes and weekly training meetings. In turn, a graduate student and faculty member (first and second authors) supervised the advanced coders.

The articles were classified into two categories: (a) focused, or (b) not involved. Focused articles were classified based on whether ethnic/racial/cultural groups were examined as a principal part of the study's design or conceptual discussion, and articles qualified if their title, keywords, or abstract indicated an emphasis on ethnicity/race/culture or a specific ethnic minority group). Not involved articles were classified based on the following description: Ethnic minorities were not a primary part of the research population or any conceptual discussion.

Articles were included if they examined U. S.-based samples and were empirical, conceptual, or articles with non-human samples (e.g. meta-analyses and content analyses). As such, book reviews, feedback pieces, and editor's notes and introductions were excluded from analysis. Articles examining international populations were excluded from this study, in order to report more simply on the status of U. S. minorities in the professional literature. For simplicity in reporting and discussing this analysis, specific terms are used for members of ethnic groups. References to ethnic groups use the often-used terminologies of "European Americans", "African Americans", "Asian Americans", "Latinos" and "Native Americans". Findings were reported with regards to specific within-group distinctions whenever possible. Further, when referencing all non-European American ethnic groups collectively, either the term 'ethnic

minorities' or the term 'ethnic groups' were used. The collective terminology was not used to communicate that these groups are less valuable, but rather to describe their demographic position as less than 50% of the U.S. population.

Seven questions were used to organize and present the findings of this content analysis.

The questions are listed as follows:

1. How many focused articles were there for each ethnic minority group?
2. Was there a change (across time) in the percentage of articles focused on ethnic groups?
3. What were the most frequently studied topics for each ethnic minority group?
4. Which published topics were most frequently funded for ethnic minorities?
5. What were the primary geographical locations for samples?
6. What were the primary settings (urban, rural, mixed, etc.)?
7. Out of the focused articles, how many contained a measure of ethnic identity and/or acculturation?

Results

1. How Many Minority-Focused Articles Were There for Each Ethnic Group?

There were a total of 2907 articles coded from the *Journal of Adolescent Health*, with the majority categorized as "not focused" (2552 articles or 87.8%) because the title, abstract, or PsycINFO subjects did not indicate an emphasis on ethnicity/race/culture or any specific ethnic group, nor was the sample made up of primarily ethnic minorities. The remaining 355 articles (12.2%) were categorized as "focused". See Table 1 for details regarding focus status (focus versus not focused) and type of article (categorized as conceptual, quantitative, qualitative, and non-human sample) by ethnic category groups.

The focused articles were also categorized by ethnicity. African Americans were the focus of 170 articles (47.8% of total 355 focused articles), 107 articles (30.1%) focused on Latinos, Asian Americans were the focus of 17 articles (4.8%), and Native Americans were the focus of 15 articles (4.2%). In addition, “other” ethnic groups (e.g., unspecified, biracial) were the focus of 86 articles (24.2%).

2. Was There a Change (Across Time) in the Percentage of Articles Focused on Ethnic Groups?

The *Journal of Adolescent Health* had a total of 355 (12.2%) ethnic minority-focused articles over the past 28 years (1990 to 2017). Across the entire timespan, the number of ethnic minority-focused articles published in the *Journal of Adolescent Health* increased (see Figure 1); however, given the increase in total published articles per year, the percentage of ethnic minority focused articles decreased. Multinomial regression analyses (SPSS, IBM Corporation, 2018) were conducted in order to test for a statistically-significant change (across the 1990-2017 timespan) in the number of articles for each specific ethnic/racial/cultural group and in the number of focused articles (all groups combined). Non-focused articles were utilized as the reference group to account for the possibility that changes in publication numbers (increases/decreases in focused articles) might be a function of overall changes in JAH’s publication rates. Changes were not found to be significant in the case of several ethnic groups (Latinos, Asian Americans, and Native Americans); however, a significant change (in fact, a decrease) was noted in the case of: (a) African Americans ($\beta = -.033$, $df(1)$, $p < .001$; Odds Ratio (OR) = 0.967), (b) the “Other” ethnic groups category ($\beta = -.059$, $df(1)$, $p < .001$; OR = 0.943), and (c) total minority-focused articles ($\beta = -.032$, $df(1)$, $p < .001$; OR = 0.968). An examination of publication trends for JAH suggests that this finding is tied to the overall increase in articles

published, going from an average of 50.8 articles per year (1990-97) to an average of 155.9 articles per year over the final eight years analyzed (2010-17). Consequently, it appears that the number of focused articles failed to keep pace with JAH's overall increase in publication rates and, as such, the journal experienced yearly declines in the number of articles for minorities (in general, with 3.3% fewer articles) and for African Americans (3.2% fewer articles) and Other ethnic groups (5.7% fewer articles).

3. What Were the Most Frequently Studied Topics for Each Ethnic Group?

As part of the coding process, coders used PsycINFO subject terms to assign and organize article topics. Inconsistencies across the 28-year period in PsycINFO's subject categorizations made it necessary to recode some subjects in order to increase the uniformity of the topical categories. As an example, "multiculturalism" and "racial and ethnic differences" were among the PsycINFO subjects that were recoded as "diversity and culture topics." Recoding was carried out by the faculty author and checked for accuracy by advanced coders, including the student author.

The most frequently studied topics in the ethnic minority focused articles varied by ethnic population. Overall, the most frequently studied topics in the focused articles were: (a) risk factors and at-risk groups (87 articles, 24.5%) dealing with topics such as prisoners and sensation seeking; (b) psychosocial development (58 articles, 16.3%) including emotional development and adolescent development; and (c) youth sexuality (58 articles, 16.3%) including premarital intercourse and sexual attitudes. The ethnic category that received the most research attention in the journal was African American (170 articles, 47.9% of focused articles). The most frequently studied topics for African Americans were: (a) risk factors and at-risk groups (50 articles, 29.4% of African American focused articles); (b) sexually-transmitted infections, including HIV and

AIDS (41 articles, 24.1%); and (c) youth sexuality (36 articles 21.2%). Among articles studying Latinos (107 total articles, 30.1% of focused articles) the most frequently studied topics were risk factors and at-risk groups (29 articles, 27.1%), medical and health topics, including topics such as health education and health promotion (29 articles, 27.1%), and government and community interventions, including school based interventions (19 articles, 17.8%). The most frequently studied topics for Asian American focused articles (17 total articles, 4.8% of focused articles) were diversity and culture topics (5 articles, 29.4%), immigration and acculturation (4 articles, 23.5%), parent-child relations (4 articles, 23.5%), and tobacco and smoking (4 articles, 23.5%). The most frequently studied topics for Native American focused articles (15 total articles, 4.2% of focused articles) were adolescent pregnancy and sexuality (4 articles, 26.7%), risk factors and at-risk groups (4 articles, 26.7%), patient-health problems (3 articles, 20%), and medical and health topics (3 articles, 20%). Among articles (86 total articles, 24.2% of focused articles) studying “Other” ethnic groups (multi-ethnic groups, combined ethnic groups, or other ethnic groups not previously mentioned), the most frequently studied topics were patient health problems (21 articles, 24.4%), psychosocial development (18 articles, 20.9%), and risk factors and at-risk groups (17 articles, 19.8%). Among non-focused articles (2552 total articles), the most frequently studied topics were: (a) medical and health topics (910 articles, 35.7%) including health promotion, adolescent illness management, and public health; (b) patient health problems (608 articles, 23.8%) such as health service needs, hormones, and hospitalization; and (c) psychosocial development (557 articles, 21.8%) dealing with topics such as developmental stages and adult attitudes. See Table 2 for details regarding the most frequently studied topics for each ethnic group.

4. What Topics Were the Most Frequently Funded for Each Ethnic Group?

As part of the coding process, coders searched each article for information or acknowledgments of funding contributions. The coders accounted for the funding agencies that contributed financial support. The most frequently funded topics for ethnicity-focused articles were similar to the most frequently studied topics for ethnicity-focused articles (see question #3 above), with the most frequently funded topics being psychosocial development (31 articles, 8.7%), risk factors and at-risk groups (26 articles, 7.3%), and adolescent pregnancy and sexuality (25 articles, 7%).

More specifically, African American-focused research was the most-often funded group, with the most funded topics being psychosocial development (16, 9.4%), risk factors and at-risk groups (14, 8.2%), and adolescent pregnancy and sexuality (13, 7.6%). The most frequently funded topics for Latino focused studies were medical and health topics (15, 14%), immigration and acculturation (9, 8.4%) and psychosocial development (9, 8.4%). Among Asian Americans, there were few focused articles (17 total focused articles), thus the only topics that were funded more than once were immigration and acculturation (3, 17.6%) and diversity and culture topics (2, 11.8%). Similarly, for Native Americans there were only 15 total focused articles and the only topics that were funded more than once were adolescent pregnancy and sexuality (3, 20%) and risk factors and at-risk groups (2, 13.3%). Among the articles focused on “Other” ethnic groups, the most frequently funded topics were patient health problems (8, 9.3%), weight and weight control (6, 7%), and patient health behaviors (6, 7%). Among the articles that were not ethnically-focused, the most frequently funded topics were psychosocial development (249, 9.8%), medical and health topics (227, 8.9%), and patient-health problems (176, 6.9%). See Table 3 for details regarding the most frequently funded topics and ethnic category.

In general, articles focusing on ethnic minority groups were funded more frequently than articles not focusing on ethnic minority groups. Of not-focused articles only 72.3% (n=1,846) were funded, while 84.8% (n=301) of focused articles were funded. In detail, 82.9% (n=301) of African American focused articles were funded, 86.0% (n=93) of Latino focused articles were funded, 94.1% (n=16) for Asian American focused articles, 93.3% (n=14) for Native American focused articles, and 70.5% (n=61) for articles focused on “Other” ethnic groups. The higher frequency of funding for ethnic minority focused articles is an encouraging sign that funding organizations are valuing ethnic minority populations in research.

5. What Were the Primary Geographical Locations for Samples?

As part of the coding process, coders categorized the 2289 empirical studies (quantitative, qualitative, mixed methods) according to each sample’s geographic location. The geographic location categories included: a specific state in the U.S., a regional area of the U. S. (e.g., Southeast, New England), a sample collected U.S. nationally (e.g., National Longitudinal Study of Adolescent Health) or a sample collected from multiple states (e.g., a sample from California, Texas, and Maine). Unfortunately, and somewhat surprisingly, a number of articles did not present information regarding the geographic location of the sample. This number included 484 (23.3%) non-focused articles and 55 (16%) focused articles. Articles that did report a geographic location included (by ethnic focus): 163 articles (84%) for African Americans, 104 (87%) for Latinos, 17 (100%) for Asian Americans, 15 (87%) for Native Americans, and 70 (88.6%) for “Other” ethnic groups.

For the non-focused articles, the most frequent locations for research samples were U.S. national samples (424, 21.9% of non-focused articles), California (188, 9.1%) or U.S. regional samples (159, 7.7%). Similarly, for focused articles, the most frequent locations were U.S.

national (47, 24.2%), California (48, 11.3%), and U.S. regional (37, 10.8%). More specifically, among African American focused articles, the most frequent locations were Georgia (16, 9.6%), US national (12, 7.2%), Maryland (12, 7.2%), and Illinois (12, 7.2%). For Latinos, the most frequent locations were California (19, 17.9%), U.S. national (13, 12.3%), and Texas (12, 11.3%). For Asians the most frequent locations were California (10, 58.8%), U.S. national (2, 11.7%), and multiple states in the U.S. (2, 11.7%). Among Native Americans, the most frequent locations were U.S. national (4, 26.7%), U.S. regional (3, 20%), and multiple states (2, 13.3%). For “Other” groups the most frequent locations were U.S. national (18, 22.7%), California (12, 15.2%), and multiple states (7, 8.8%). The percentage of the population made up of ethnic minority groups varies based on the geographic location of the U.S. Thus, detail regarding the geographic areas in which certain ethnic groups were most studied allows for understanding of the research representation of these groups in given locations.

6. What Were the Primary Settings (Urban, Rural, Mixed, Etc.)?

Using the description of the sample found in the articles, the samples were also coded for their setting (i.e., urban, suburban, rural, mixed). When no information was given in regard to the samples’ setting (i. e., no specification of urban, suburban, rural, or mixed) but there was a large geographic area specified (e.g., national, regional, statewide sample), there was an assumption of mixed settings. African American (91 articles, 54.8%) and Latino samples (45, 42.5%) were both primarily based in urban settings. Asian American (6, 35.4%), Native American (5, 33.3%) and “Other” groups (31, 39.2%) were primarily located in mixed settings, indicating that the samples were primarily collected from larger geographic areas (e.g. national, regional or state samples). Likewise, articles not focusing on ethnic minorities were primarily located in mixed settings (707, 34.1%). Congruent with the reporting of geographical location of samples, 46.8% of

European American-focused studies (900 articles) and 39.7% of ethnic minority-focused studies (152) did not report the type of setting in which the sample was collected.

7. Out of the Focused Articles, How Many Contained a Measure of Ethnic Identity and/or Acculturation?

Ethnically-focused empirical articles were coded for the presence of measures (ethnic identity and acculturation) that, by their very nature, are ethnically-focused. In doing so, this portion of the content analysis is an explicit (but indirect) assessment of researcher recognition of and sensitivity to within-group race/ethnic/cultural differences. Ethnic identity is conceptualized as one's sense of self in terms of ethnicity and has been recognized as an important variable to assess in minority-group samples since 1990 (Phinney 1990; Phinney, 2000). Acculturation is the process of adapting to mainstream cultural values during cross national transitions that can lead to cultural and psychological changes (Berry, 1995; Berry 2005). Although, there are studies that examine acculturation in African American samples, it is primarily used with immigrant or potentially-immigrant groups (i.e., Latinos, Asian Americans).

Overall, of the ethnically-focused empirical articles (n=339), only 17 (4.9%) contained a measure of ethnic identity. More specifically, 5 empirical articles (3.2% of African American focused studies) focusing on this ethnic group contained a measure of ethnic identity, 5 articles (5.4%) for Latinos, 2 articles (13.3%) for Asian Americans, 1 article (7.1%) for Native Americans, and 4 articles (5.4%) for other or combined ethnic groups. From the ethnically-focused empirical articles (n=339), only 30 studies (8.7%) contained a measure of acculturation. Specifically, by ethnicity, 4 (2.6%) empirical articles focused on African Americans contained a measure of acculturation, 19 articles (19.8%) for Latinos, 7 articles (46.7%) for Asian Americans, none for Native Americans, and 3 (4.2%) for "Other" ethnic groups. As an evidence

of increased researcher sensitivity and better scholarship, the majority of the 47 studies (n=30, 63.8%) utilizing measures of ethnic identity and acculturation were published in the past 12 years.

Discussion

How Many Minority-Focused Articles Were There for Each Ethnic Group

The current study was conducted to examine one of the most prominent adolescent health journals (the *Journal of Adolescent Health*), providing a status update on ethnically-focused research trends over the past 28 years (1990-2017). According to recent census data, the U.S. population is composed of 38.7% ethnic minorities (United States Census Bureau, 2017), but only 12.2% of published articles were ethnic minority-focused. Thus, ethnic minority focused articles were underrepresented in the *Journal of Adolescent Health*. Similarly, the percentage of published articles focused on each specific ethnic group were lower than the current U. S. percentages, including African Americans (5.8% of the published articles versus 13.3% of the U. S. population), Asian Americans (0.6% versus 5.9%) and Native Americans (0.5% of the published articles versus 1.3% of the population). The biggest discrepancy was among Latinos, with only 3.7% of published articles focusing on Latinos versus 17.8% of the U.S. population being Latinos. This discrepancy (14.1%) is particularly concerning given that Latinos are the largest ethnic minority population in the U.S (United States Census Bureau, 2017).

Latinos and African Americans made up the overwhelming majority of ethnically-focused articles (together they were the focus of 78% of the focused articles). However, they were still less represented in the literature than they are as ethnic minority populations in the U.S (9.5% of published articles versus 31.1% of the U.S. population). Their underrepresentation in the research literature is important to note, given that they are at increased risk (compared to

their European American counterparts) of poverty, institutionalized racial discrimination, homophobia, disrupted social networks, incarceration, and sexually transmitted infections, including HIV and AIDS (Sionean et al., 2014; Sutton & Parks, 2013). Along with these increased risks, they have less access to both preventive and required health care (Sutton & Parks, 2013), and there are similar concerns with the lack of research attention given to Asian Americans, who are less likely to utilize resources such as mental health services (Le Meyer et al., 2009). Moreover, the underrepresentation Native American is discouraging. Native Americans are regularly overlooked (U.S. Commission on Civil Rights, 2003), even though they are at increased risk of poverty, alcohol-attributed harms, trauma, stroke, and death from cancer and heart disease (Chartier, Vaeth & Caetano, 2013; Jacobs-Wingo et al., 2016; Sarche & Spicer, 2008; Schieb, Ayala, Valderrama & Veazie, 2014).

There are several possibilities for the underrepresentation of ethnic minority-focused articles including: (a) division between practitioners and researcher, where practitioners are serving ethnic minorities, but their expertise and knowledge is not being clearly communicated to researchers publishing material; (b) cultural misunderstandings that can result in implicit biases; and (c) language barriers that create communication difficulties and methodological obstacles to research (Drewniak, Kronos & Wild, 2017). There is also a possibility that ethnic minority focused articles were under reported because the authors and/or PsycINFO did not include relevant terms specifying ethnicity, race, or culture in the article titles, abstracts, or subjects. Lastly, some of the articles categorized as non-focused may have contained knowledge and/or findings that were applicable to ethnic minority groups.

Change Across Time in Percentage of Articles Focused on Ethnic Groups

Over the last 28 years, the *Journal of Adolescent Health* gradually increased in the number of ethnic minority focused articles published per year, but in relation to yearly article output there was a decrease in the actual percentage of ethnic minority focused articles per year (5.7% decrease in percentage of ethnic minority focused articles published). In fact, the multinomial regression analyses performed demonstrated that the *Journal of Adolescent Health* has tripled its total yearly article output (with an average of 50 articles per year from 1990 to 1997 and an average of 150 articles per year from 2010 to 2017). However, the rate of ethnic minority focused articles submitted and/or published has failed to keep pace with the tripling total publications. This is not specific just to the *Journal of Adolescent Health* and does not negate the benefits of quality research done with majority-population, European American samples. However, it indicates that social science and healthcare researchers (and their associated funding organizations) have an increased need to prioritize the health outcomes of U.S. ethnic minorities. It will be important in the coming years for the *Journal of Adolescent Health* to increase its efforts to publish research focused on ethnic minority groups in order to keep up with the growing ethnic minority population in the U.S. (Passel, 2011; United States Census Bureau, 2012).

Most Frequently Studied Topics for Each Ethnic Group

In examining the list of most-often researched topics, it is important to highlight incongruences between what has been studied and what could be and, perhaps, should be studied. This notion is best explored at a group-level as publication trends for specific ethnic groups may or may not match the group's (assumed) greatest needs. Encouragingly, most of the

frequently studied topics were at least partially congruent with those issues most seriously affecting specific ethnic groups.

Some of the issues that most seriously affect Latinos are lack of preventative care, heart disease, cancer, diabetes, alcohol abuse, acculturation conflicts, depression, and racism/discrimination (Sue & Sue, 2013; U.S. Department of Health and Human Services Office of Minority Health, 2016). The topics most studied among Latinos were risk factors/at-risk groups, as well as medical/health topics and government and community program intervention. Some of topics studied (particularly the study of medical and health topics) were congruent with the issues most seriously affecting Latinos. Further, while not explicitly specified in the research, it is possible that some of articles studying risk factors/at-risk groups and/or program interventions apply to those topics that seriously affect Latinos (such as alcohol abuse and depression).

Native Americans face a number of significant challenges in the form of cancer, teenage pregnancy, infant death, poverty, substance abuse, domestic violence, discrimination, and suicide (Sue & Sue, 2013; U.S. Department of Health and Human Services Office of Minority Health, 2016). The analysis determined that the topics most frequently researched among Native Americans were adolescent pregnancy and sexuality, risk factors/at-risk groups, patient health problems, and medical and health topics. Thus, some of the most studied topics (including teenage pregnancy and medical/health topics) were congruent with the greatest needs among Native Americans. Moreover, it is again possible that those articles studying risk factors applied to topics seriously affecting this group (such as substance use, domestic violence and suicide).

Even more encouragingly, the topics most frequently studied among African Americans and Asian Americans were very congruent with what could and/or should be studied. Some of

the issues that most negatively impact African Americans (i.e., HIV and other sexual transmitted diseases, Johnson, 2017) were found to be frequently-studied topics in this content analysis. The topics most studied among African Americans were risk factors/at-risk groups (which included topics such as sexual risk taking), as well as HIV/AIDS/STDs and sexuality. Similarly, some of the issues most relevant to Asian Americans (i.e., acculturation, assimilation, and discrimination) were among the frequently-studied topics, which included immigration and acculturation, as well as other diversity and culture topics (Sue & Sue, 2013).

When analyzing the data for research topics that are directly and uniquely related to the U. S. ethnic minority experience (i.e., ethnic/racial identity, immigration and acculturation, diversity/cultural topics such as cultural sensitivity and interracial families), there is evidence both positive and negative. In a positive light, 17.1% percentage of all focused articles studied these topics, directly relating to them to one or more U. S. ethnic minorities. Unfortunately, over the 28-year period and across the 2907 articles, only 0.3% publications studied ethnic/racial identity, 0.8% studied immigration and acculturation, and 2.0% studied diversity issues. Overall, these findings indicate that there are efforts being made to study topics valuable to ethnic minority groups in articles specifically focused on those groups, but that there is an overall lack of articles studying these topics.

Most Frequently Funded Topics for Each Ethnic Group

In this analysis, the list of most-frequently funded topics was found to be very similar to the list of topics most frequently studied. As such, the most frequently funded topics were fairly well matched with specific ethnic group's greatest needs (the topics of most concern). As an example, for Native Americans the most funded topic was adolescent pregnancy and sexuality, and among the most concerning topics for that ethnic group are teenage pregnancy and infant

death (Sue & Sue, 2013; U.S. Department of Health and Human Services Office of Minority Health). Further the most frequently funded topic for Asian Americans was immigration and acculturation, and some of the most relevant topics for Asian Americans are acculturation, assimilation, and discrimination (Sue & Sue, 2013). Thus, it is encouraging that there are efforts being made to allocate funding to those topics that are of special importance and relevance to specific ethnic minority groups.

More generally, ethnic minority focused articles were funded more frequently than not focused articles (82% for focused articles versus 69.2% for not focused articles). This is highly encouraging and shows evidence that funding organizations are prioritizing ethnic minority research and providing a strong level of support. Further, this serves as another indicator of the high level of research being carried out by scholars in this multidisciplinary field (adolescent health) and helps validate the decision to examine *Journal of Adolescent Health* publications as representative sample of top-quality scholarship.

Primary Geographical Locations for Samples

For all articles (both focused and not-focused articles), the most frequently reported geographic locations reported for samples were national and regional samples (14.1% and 21.9%, respectively). This is assuredly a product of the high percentage of funded articles in this journal, where funding support most likely helped facilitate more wide-spread geographic sampling. After the national and regional reported locations, California was (by far) the geographical location most reported for both focused and not-focused articles. In fact, it was the primary geographical location reported for Latinos, Asian Americans, and “other” ethnic groups. California is among the states (also including Hawaii, New Mexico, and Texas) where ethnic minorities make up the majority of population, thus their status among the most reported

geographic locations is fitting (Maciag, 2015). Texas was also frequently reported as a geographic location of samples, being repeatedly reported as a geographic location for Latinos, African Americans and other or combined ethnic groups. However, the other states that have ethnic minorities as the majority of the population are not among the states that were most frequently reported in the literature. There are a few reasons why this may be, including (a) possibly better funding in California for ethnic minority focused research; (b) easier access to ethnic minority research populations; and/or (c) more awareness of issues relating to ethnic minority groups among policy makers and researchers with access to California samples. Many states with a high population percentage of ethnic minorities (i.e. District of Columbia, Florida, Georgia) did not have representative inclusion in reports of geographic locations. Given this lack of ethnic minority representation, there is a possibility that these states are operating with inattention to the needs of their populations. It may also be possible that they are unaware of the ethnic makeup of their populations and are operating using outdated or insufficient data.

Measures of Ethnic Identity and/or Acculturation in Ethnic Minority Focused Articles

Ethnic identity and acculturation are important constructs for valid research with ethnic minority groups (Berry 2005; Phinney, 2000). Measures of acculturation were more frequently used than measures of ethnic identity in ethnic minority focused articles (8.7% vs. 4.9%); however, both were not used very often. Given their importance, the infrequency with which these measures were used is discouraging.

The constructs of ethnic identity and acculturation have value in demonstrating within-group diversity. In particular, ethnic identity demonstrates the influence of community ethnic concentration (Umaña-Taylor, 2011). The level of inclusion of these constructs in research studies demonstrates the level of scholarly sensitivity to ethnic, racial and cultural topics. Thus,

their lack of use points to a need for increased sensitivity to within-group diversity among the ethnic minority groups sampled in research studies.

On more positive note, it appears that there has already been an increase in the frequency with which these constructs are being used. The majority of the 47 studies (n=30, 63.8%) utilizing measures of ethnic identity and acculturation being published in the last 12 years. It will be important for these constructs to continue to be more frequently used in research in order to better account for and understand the experiences of ethnic minority groups.

Limitations

The findings of the current study should be understood with certain limitations in mind. First, the coding process used in this article was, at times, subjective and may reflect biases of the coders. The majority of the coders were European American students (both graduate and undergraduate), thus the material presented may be informed by their cultural and educational biases. Second, the articles used in this analysis are numerous and come from the *Journal of Adolescent Health*, which has a high impact factor; however, given that the articles are from a single journal, they may not represent the scope of health-related research as a whole. Third, this content analysis was not able to account for the rates of submission. Thus, it is possible that the number of submission of ethnic minority focused articles were higher or lower than the reported percentages of ethnic focused articles in this analysis. Journals can only publish what they are sent to review and the shortage in minority-focused articles is, then, more likely a product of researcher failings rather than any editorial bias or oversight (especially given the sheer number of years and number of articles reviewed). Lastly, book reviews and letters to the editor were not included in this analysis and it is possible that there was ethnic minority focused content in those publications.

Conclusion

The increase in the number of articles published that are ethnic minority focused over the last 28 years is promising. However, the decrease in percentage of focused articles warrants further attention in order to increase representation of ethnic minority adolescents in the health field. Researchers, practitioners, funding agencies, and policy makers must increase their focus on ethnic minority groups to meet the growing population and to increase health care access and deliver to ethnic minority adolescents. Researchers can make greater efforts to include ethnic minority groups in their samples and focus their research specifically on groups not often included. Practitioners can use increased ethnic minority focused research to develop and use culturally appropriate interventions that may reduce disparities in treatment (Interian, Lewis-Fernández & Dixon, 2013). Further, practitioners can consider sharing the knowledge they gain from experience in order to direct researchers' attention to the appropriate needs. Funding agencies can increase communication with researchers in order to know what topics are most relevant and necessary to given ethnic minority populations.

Overall, the continual growth in ethnic minority adolescent populations in the U.S. calls for a response from the health field to focus effort on ethnic minority groups. It appears that the field has responded to the growth with increased attention, and it is imperative that this attention continue and even grow to become more of a priority. It is imperative that the health field further respond by increasing publications focused on ethnic minority groups, particularly adolescent ethnic minority groups, with articles centered on topics most directly applicable to those groups.

References

- Allen, C. D., McNeely, C. A., & Orme, J. G. (2016). Self-rated health across race, ethnicity, and immigration status for US adolescents and young adults. *Journal of Adolescent Health, 58*(1), 47-56. doi:10.1016/j.jadohealth.2015.09.006
- Arredondo, P., Rosen D. C., Rice, T., Perez, P., Tovar-Gamero, Z. G. (2005). Multicultural Counseling: A 10-year content analysis of the *Journal of Counseling & Development. Journal of Counseling & Development, 83*(2), 155-161.
- Bagchi, A. D., Af Ursin, R., & Leonard, A. (2012). Assessing cultural perspectives on healthcare quality. *Journal of Immigrant and Minority Health / Center for Minority Public Health, 14*(1), 175-182. doi:10.1007/s10903-010-9403-z
- Baker, C. A., Bowen N. V., Butler, J. Y., & Shavers, M. C. (2013). Race and ethnicity: An 11-year content analysis of counseling and values. *Counseling and Values, 58*(1), 36-44.
- Bean, R. A., Crane, D. R., & Lewis, T. L. (2002). Basic research and implications for practice in family science: A content analysis and status report for U.S. ethnic groups. *Family Relations: An Interdisciplinary Journal of Applied Family Studies, 51*(1), 15-21. doi:10.1111/j.1741-3729.2002.00015.x
- Bean, R. A., Lefrandt, J. B., Gilliland, J. C., Lee, C. T. & Miller, R. B. (2016). A content analysis of adolescent development journals: Using the recent past to guide the study of minority youth. Manuscript in preparation.
- Berry, J. W. (1995). Psychology of acculturation. In N. Goldberg & J. Veroff (Eds.), *The culture and psychology reader* (pp. 457– 488). New York, NY: New York University Press.
- Berry, J. W. (2005). Acculturation: Living successfully in two cultures. *International Journal of Intercultural Relations, 29*, 697–712.

- Biello, K. B., Niccolai, L., Kershaw, T. S., Haiqun, L., & Ickovics, J. (2013). Residential racial segregation and racial differences in sexual behaviours: An 11-year longitudinal study of sexual risk of adolescents transitioning to adulthood. *Journal of Epidemiology & Community Health*, *67*(1), 28-34. doi:10.1136/jech-2011-200520
- Blancher, A. T., Buboltz, W. C., & Soper, B. (2010). Content analysis of the *Journal of Counseling & Development: Volumes 74 to 84*. *Journal of Counseling & Development*, *88*(2), 139-145.
- Blanco-Oilar, C. (2009). Ethnic minority adolescents' substance use and risky sexual behavior: The influence of child problem behavior, peer relations, and acculturation-related factors. *Dissertation Abstracts International*, *69*, 6449.
- Buboltz, W. J., Deemer, E., & Hoffmann, R. (2010). Content analysis of the *Journal of Counseling Psychology: Buboltz, Miller, and Williams (1999) 11 years later*. *Journal of Counseling Psychology*, *57*(3), 368-375. doi:10.1037/a0020028
- Budhwani, H. (2013). Mental health disparities in racial and ethnic minorities: The impact of nativity and ethnicity on depression and anxiety. *Dissertation Abstracts International Section A*, *74*, 1-130.
- Butler, M., McCreedy, E., Schwer, N., Burgess, D., Call, K., Przedworski, J., & ... Kane, R. L. (2016). *Improving Cultural Competence to Reduce Health Disparities*. Agency for Healthcare Research and Quality (US), Rockville (MD)
- Campbell, C. I., Weisner, C., & Sterling, S. (2006). Adolescents entering chemical dependency treatment in private managed care: Ethnic differences in treatment initiation and retention. *Journal of Adolescent Health*, *38*(4), 343-350.
doi:10.1016/j.jadohealth.2005.05.028

- Case, L. L. (2002). A critical analysis of racial and ethnic minority inclusion in empirically based health care research. *Dissertation Abstracts International*, 63, 2051.
- Centers for Disease Control and Prevention (1993) Use of race and ethnicity in public health surveillance: Summary of the CDC/ATSDR workshop. *MMWR Morb Mortal Wkly Rep.* 42:1Y16.
- Chartier, K. G., Vaeth, P. C., & Caetano, R. (2013). Focus on: Ethnicity and the social and health harms from drinking. *Alcohol Research: Current Reviews*, 35(2), 229-237.
- Cheref, S., Lane, R., Polanco-Roman, L., Gadol, E., & Miranda, R. (2015). Suicidal ideation among racial/ethnic minorities: Moderating effects of rumination and depressive symptoms. *Cultural Diversity and Ethnic Minority Psychology*, 21(1), 31- 40.
doi:10.1037/a0037139
- Colby, S., & Ortman, J. (2015). Projections of the size and composition of the U.S. population: 2014 to 2060. *United States Census Bureau*, 1-13.
- Cundiff, J. L. (2012). Is mainstream psychological research 'womanless' and 'raceless'? An updated analysis. *Sex Roles*, 67(3-4), 158-173
- Daniels, J. A., Spero, R. A., Leonard, J. M., & Schimmel, C. J. (2015). A content analysis of *Military Psychology: 2002–2014*. *Military Psychology*, 27(6), 366-375.
doi:10.1037/mil0000091
- Delgado-Romero, E. A., Galván, N., Maschino, P., & Rowland, M. (2005). Race and ethnicity in empirical counseling and counseling psychology research: A 10-year review. *The Counseling Psychologist*, 33, 419-448. doi:10.1177/0011000004268637

- Drevdahl, D. J., Philips, D. A., & Taylor, J. Y. (2006) Uncontested categories: The use of race and ethnicity variables in nursing research. *Nursing Inquiry*, *13*(1), 52-63.
doi:10.1111/j.1440-1800.2006.00305.x
- Drewniak, D., Kronos, T., & Wild, V. (2017). Do attitudes and behavior of health care professionals exacerbate health care disparities among immigrant and ethnic minority groups? An integrative literature review. *International Journal of Nursing Studies*, *70*, 89-98. doi:10.1016/j.ijnurstu.2017.02.015
- Eamon, M. K. (2001). Poverty, parenting, peer and neighborhood influences on young adolescent antisocial behavior. *Journal of Social Service Research*, *28*(1), 1-23.
- Garber, M., & Arnold, R. M. (2006). Promoting the participation of minorities in research. *The American Journal of Bioethics*, *6*(3), W14-W20. doi:10.1016/j.ijnurstu.2017.02.015
- Haderxhanaj, L. T., Dittus, P. J., Loosier, P. S., Rhodes, S. D., Bloom, F. R., & Leichter, J. S. (2014). Acculturation, sexual behaviors, and health care access among Hispanic and on-Hispanic white adolescents and young adults in the United States 2006–2010. *Journal of Adolescent Health*, *55*(5), 716-719. doi:10.1016/j.jadohealth.2014.06.018
- Hall, G. C., & Maramba, G. G. (2001). In search of cultural diversity: Recent literature in cross-cultural and ethnic minority psychology. *Cultural Diversity and Ethnic Minority Psychology*, *7*(1), 12-26. doi:10.1037/1099-9809.7.1.12
- Hartmann, W. E., Kim, E. S., Kim, J. J., Nguyen, T. U., Wendt, D. C., Nagata, D. K., & Gone, J. P. (2013). In search of cultural diversity, revisited: Recent publication trends in cross-cultural and ethnic minority psychology. *Review of General Psychology*, *17*(3), 243-254.
- IBM Corporation (2018). IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.

- Inman, A. G., Devdas, L., Spektor, V., & Pendse, A. (2014). Psychological research on South Asian Americans: A three-decade content analysis. *Asian American Journal of Psychology, 5*(4), 364-372.
- Institute of Medicine (2009) *Race, ethnicity, and language data: Standardization for health care quality improvement*. Retrieved from <http://nationalacademies.org/includes/data.pdf>. Accessed on July 11, 2018.
- Interian, A., Lewis-Fernández, R., & Dixon, L. B. (2013). Improving treatment engagement of underserved U.S. racial-ethnic groups: A review of recent interventions. *Psychiatric Services, 64*(3), 212-222. doi:10.1176/appi.ps.201100136
- International Committee of Medical Journal Editors (2010) Selection and description of participants. (Section IV.A.6.a). In *Uniform requirements for manuscripts submitted to biomedical journals: Writing and editing for biomedical publication*. Philadelphia: International Committee of Medical Journal Editors. Retrieved from <http://www.icmje.org>. Accessed on July 11, 2018.
- Jacobs-Wingo, J. W., Espey, D. K., Groom, A. V., Phillips, L. E., Haverkamp, D. S., & Stanley, S. L. (2016). Causes and disparities in death rates among urban American Indian and Alaska Native populations, 1999-2009. *American Journal of Public Health, 106*(5), 906-914.
- Johnson, J. (2017). Social norms, gender ratio imbalance, perceptions of risk, and the sexual behaviors of African American women at historically black colleges and universities. *Journal of African American Studies, 21*(2), 203-215. doi:10.1007/s12111-017-9354-8

- Kahn, J. (2003) Getting the numbers right: Statistical mischief and racial profiling in heart failure research. *Perspectives in Biology and Medicine*, 46(4), 473-483.
- Knerr, S., Wayman, D., & Bonham, V. L. (2011). Inclusion of racial and ethnic minorities in genetic research: Advance the spirit by changing the rules? *Journal of Law, Medicine & Ethics*, 39(3), 502-512. doi:10.1111/j.1748-720X.2011.00617.x
- Lau, A. S., Chang, D. F., & Okazaki, S. (2010). Methodological challenges in treatment outcome research with ethnic minorities. *Cultural Diversity and Ethnic Minority Psychology*, 16(4), 573-580. doi:10.1037/a0021371
- Lee, D. L., Rosen, A. D., & Burns, V. (2013). Over a half-century encapsulated: A multicultural content analysis of the *Journal of Counseling Psychology*, 1954–2009. *Journal of Counseling Psychology*, 60(1), 154-161. doi:10.1037/a0031002
- Le Meyer, O., Zane, N., Cho, Y. I., & Takeuchi, D. T. (2009). Use of specialty mental health services by Asian Americans with psychiatric disorders. *Journal of Consulting and Clinical Psychology*, 77, 1000–1005.
- Levesque, R. J. R. (2007) The ethnicity of adolescent research. *Journal of Youth and Adolescence*, 36, 375-389.
- Lewis-Fernández, R., Raggio, G. A., Gorritz, M., Duan, N., Marcus, S., Cabassa, L. J., & ... Hinton, L. (2013) GAP-REACH: A checklist to assess comprehensive reporting of race, ethnicity, and culture in psychiatric publications. *Journal of Nervous & Mental Disease*, 201(10), 860-871. doi:10.1097/NMD.0b013e3182a5c184

Liu, J., Davidson, E., Bhopal, R., White, M., Johnson, M., Netto, G., & ... Sheikh, A. (2012).

Adapting health promotion interventions to meet the needs of ethnic minority groups: Mixed-methods evidence synthesis. *Health Technology Assessment (Winchester, England)*, 16(44), 1-469. doi:10.3310/hta16440

Maciag, M. (2015). A state-by-state look at growing minority populations. Retrieved June 16, 2018, from <http://www.governing.com/topics/urban/gov-majority-minority-populations-in-states.html>

Mak, W. S., Law, R. W., Alvidrez, J., & Pérez-Stable, E. J. (2007). Gender and ethnic diversity in NIMH-funded clinical trials: Review of a decade of published research. *Administration and Policy In Mental Health*, 34(6), 497-503.

Marrast, L., Himmelstein, D. U., & Woolhandler, S. (2016). Racial and ethnic disparities in mental health care for children and young adults. *International Journal of Health Services*, 46(4), 810-824. doi:10.1177/0020731416662736

Mir, G., Salway, S., Kai, J., Karlsen S, Bhopal, R., Ellison, G., & Sheikh, A. (2012) Principles for research on ethnicity and health: The Leeds Consensus Statement. *European Journal Of Public Health*, 23(3), 504-510. doi:10.1093/eurpub/cks028

Moscou, S. (2008). The conceptualization and operationalization of race and ethnicity by health services researchers. *Nursing Inquiry*, 15(2), 94-105. doi:10.1111/j.1440-1800.2008.00413.x

National Health Expenditure Data. (2015) Centers for Medicare & Medicaid Services. Retrieved November 14, 2016, from <http://www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/NationalHealthExpendData/NationalHealthAccountsHistorical.html>

- National Institutes of Health. (1994). *Guidelines on the inclusion of women and minorities as subjects in clinical research*. Retrieved from <http://grants.nih.gov/grants/guide/notice-files/not94-100.html>
- National Partnership for Action to End Health Disparities. (2011) *National stakeholder strategy for achieving health equity*. Washington, DC: National Partnership for Action. Retrieved from <https://minorityhealth.hhs.gov/npa/files/Plans/NSS/CompleteNSS.pdf>. Accessed on July 11, 2018.
- Nilsson, J. E., Love, K. M., Taylor, K. J., & Slusher, A. L. (2007). A content and sample analysis of quantitative articles published in the *Journal of Counseling & Development* between 1991 and 2000. *Journal of Counseling & Development*, 85(3), 357-363.
- Passel, J. S. (2011). Demography of immigrant youth: Past, present, and future. *Future of Children*, 21(1), 19-41. doi:10.1037/10518-122
- Phinney, J. S. (1990). Ethnic identity in adolescents and adults: Review of research. *Psychological Bulletin*, 108(3), 499-514. doi:10.1037/0033-2909.108.3.499
- Phinney, J. S. (2000). Ethnic and racial identity: Ethnic identity. In, *Encyclopedia of Psychology*, Vol. 3 (pp. 254-259). Washington, DC, US; New York, NY, US: American Psychological Association. doi:10.1037/10518-122
- Richardson, B. L., Macon, T. A., Mustafaa, F. N., Bogan, E. D., Cole-Lewis, Y., & Chavous, T. M. (2015). Associations of racial discrimination and parental discrimination coping messages with African American adolescent racial identity. *Journal of Youth and Adolescence*, 44(6), 1301-1317. doi:10.1007/s10964-014-0196-6
- Sankar, P., Cho, M. K., & Mountain, J. (2007). Race and ethnicity in genetic research. *American Journal of Medical Genetics. Part A*, 143A(9), 961-970.

- Sarche, M., & Spicer, P. (2008). Poverty and health disparities for American Indian and Alaska Native children: Current knowledge and future prospects. *Annals of the New York Academy of Sciences*, 1136, 126-136.
- Schieb, L. J., Ayala, C., Valderrama, A. L., & Veazie, M. A. (2014). Trends and disparities in stroke mortality by region for American Indians and Alaska Natives. *American Journal of Public Health*, (S3), S368-S376.
- Sionean, C., Le, B. C., Hageman, K., Oster, A. M., Wejnert, C., Hess, K. L., & Paz-Bailey, G. (2014). HIV risk, prevention, and testing behaviors among heterosexuals at increased risk for HIV infection — National HIV Behavioral Surveillance System, 21 U.S. Cities, 2010. *MMWR Surveillance Summaries*, 63(14), 1-39.
- Sue, D.W., & Sue, D. (2013). *Counseling the culturally diverse: Theory and practice* (6th edition). John Wiley and Sons, Inc. Hoboken, NJ.
- Sutton, M. Y., & Parks, C. P. (2013). HIV/AIDS prevention, faith, and spirituality among black/African American and Latino communities in the United States: Strengthening scientific faith-based efforts to shift the course of the epidemic and reduce HIV-related health disparities. *Journal of Religion and Health*, 52(2), 514-530. doi:10.1007/s10943-011-9499-z
- Umaña-Taylor, A. J. (2011). Ethnic identity. In S. J. Schwartz, K. Luyckx, V. L. Vignoles, S. J. Schwartz, K. Luyckx, V. L. Vignoles (Eds.) , *Handbook of identity theory and research* (pp. 791-801). New York, NY, US: Springer Science + Business Media. doi:10.1007/978-1-4419-7988-9_33

- United States Census Bureau. (2012) *U.S. Census Bureau projections show a slower growing, older, more diverse nation a half century from now*. Retrieved from <https://www.census.gov/newsroom/releases/archives/population/cb12-243.html>
- United States Census Bureau. (2017). *Race and Hispanic origin*. Retrieved from <https://www.census.gov/quickfacts/fact/table/US/PST040216#viewtop>
- U.S. Commission on Civil Rights. (2003). *A quiet crisis: Federal funding and unmet needs in Indian Country*. Retrieved from <http://www.usccr.gov/pubs/na0703/na0731.pdf>
- U.S. Department of Health and Human Services Office of Minority Health. (2016) *Minority Population Profiles*. Retrieved from <https://minorityhealth.hhs.gov/omh/browse.aspx?lvl=2&lvlid=26>
- Wong, Y. J., Steinfeldt, J. A., Speight, Q. L., & Hickman, S. J. (2010). Content analysis of *Psychology of Men & Masculinity* (2000 –2008). *Psychology of Men & Masculinity*, 11, 170 –181. <http://dx.doi.org/10.1037/a0019133>

AppendixTable 1 - *Frequency of Article Type by Ethnic Group for Journals Combined: n (%)*

<u>Article Type</u>	<u>Not Focused</u>	<u>Focused</u>	<u>AA</u> ^a	<u>L</u> ^a	<u>AsA</u> ^a	<u>NA</u> ^a	<u>Other</u> ^a	<u>Totals</u>
Conceptual/Theoretical	476 (18.7)	11 (3.1)	4 (2.4)	1 (0.9)	0 (0.0)	0 (0.0)	7 (8.1)	487
Quantitative	1816 (71.2)	299 (84.2)	144 (84.7)	89 (83.2)	14 (82.3)	13 (86.7)	70 (81.4)	2115
Qualitative	134 (5.3)	40 (11.3)	19 (11.2)	16 (15.0)	3 (17.6)	2 (13.3)	8 (9.3)	174
Non-Human Sample	126 (4.9)	5 (1.4)	3 (1.8)	1 (0.9)	0 (0.0)	0 (0)	1(1.2)	131
Total	2552 (100)	355 (100)	170 (100)	107 (100)	17 (100)	15 (100)	86 (100)	2907

^aEA = European American, AA=African American. L=Latino(a), AsA=Asian American, NA= Native Americans, Other=Other ethnic groups not mentioned or combined ethnic groups.

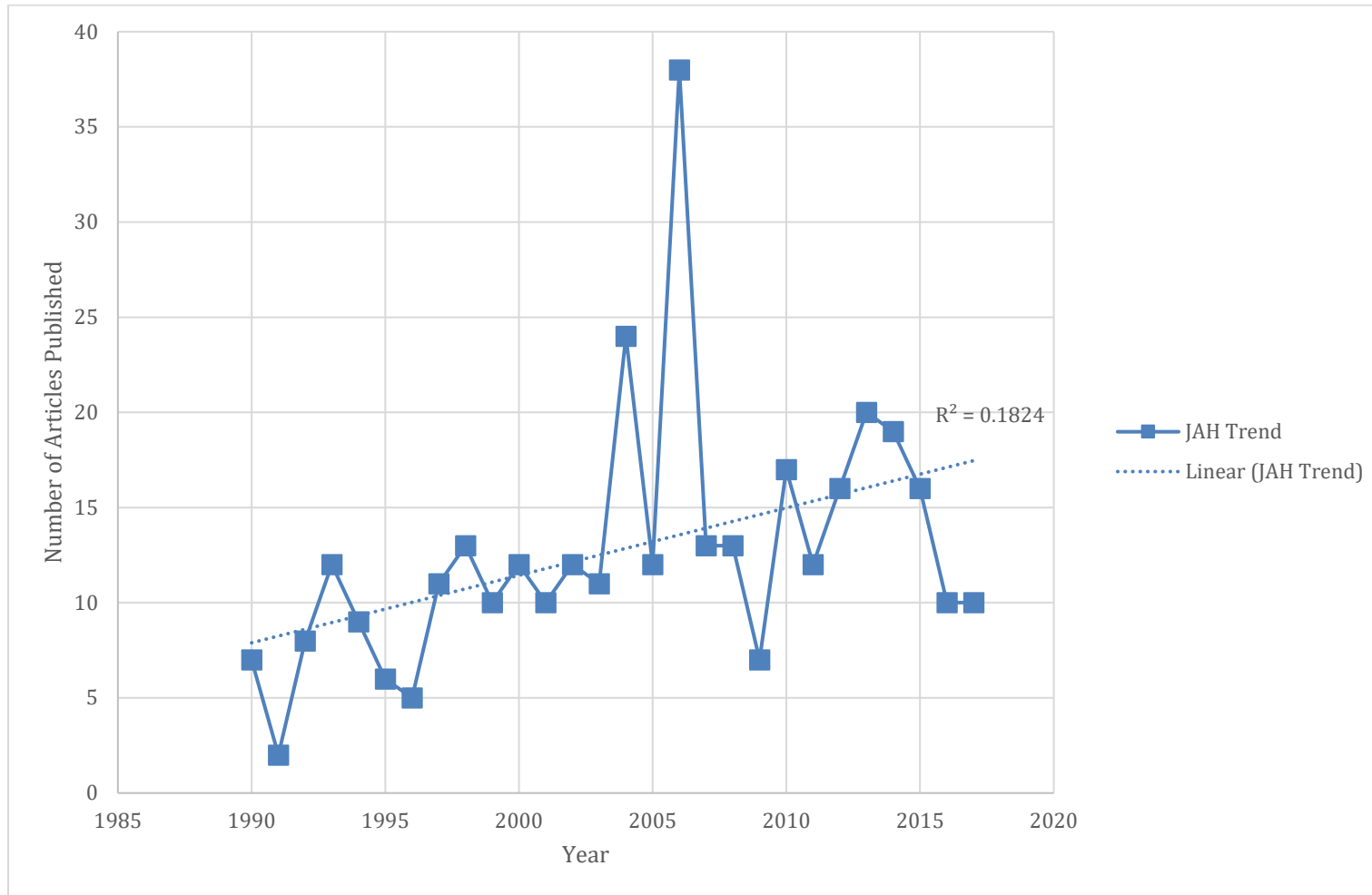
Figure 1 - *Minority Focused Articles by Year*

Table 2 - *Most Frequently Studied Topics by Ethnic Group: n (%)*

<u>Subject</u>	<u>EA</u> ^a	<u>AA</u> ^a	<u>L</u> ^a	<u>AsA</u> ^a	<u>NA</u> ^a	<u>Other</u> ^a	<u>Totals</u>
Medical and Health Topics	910 (35.7)	16 (9.4)	29 (27.1)	3 (17.6)	3 (20)	6 (7)	967
Patient Health Problems	608 (23.8)	18 (10.6)	13 (12.1)	1 (5.9)	3 (20)	2 (2.3)	645
Psychosocial Development	557 (21.8)	26 (15.3)	13 (12.1)	2 (11.8)	2 (13.3)	3 (3.5)	603
Risk Factors and At-Risk Groups	496 (19.4)	50 (29.4)	29 (27.1)	3 (17.6)	4 (26.7)	16 (18.6)	598
Sexuality	336 (13.2)	36 (21.2)	17 (15.9)	2 (11.8)	2 (13.3)	7 (8.1)	400
HIV, AIDS, and STDS	373 (14.6)	41 (24.1)	10 (9.3)	0 (0)	0 (0)	3 (3.5)	427
Government and Community Program Intervention	373 (14.6)	17 (10)	19 (17.8)	2 (11.8)	0 (0)	9 (10.5)	420
Diversity and Culture Topics	25 (1)	10 (5.9)	9 (8.4)	5 (29.4)	0 (0)	5 (5.8)	54
Immigration and Acculturation	2 (0.1)	0 (0)	10 (9.3)	4 (23.5)	0 (0)	0 (0)	16
Tobacco and Smoking	188 (7.4)	12 (7.1)	10 (9.3)	4 (23.5)	2 (13.3)	4 (4.7)	220
Totals (for all topics studied)	3868 (151.6)	226 (132.9)	159 (148.6)	26 (152.9)	16 (106.7)	55 (64)	

^aEA = European American, AA=African American. L=Latino(a), AsA=Asian American, NA= Native Americans, Other=Other ethnic groups not mentioned or combined ethnic groups.

Table 3 - *Top Funded Subjects by Ethnic Group, Frequency: n (%)*

<u>Subject</u>	<u>EA</u> ^a	<u>AA</u> ^a	<u>L</u> ^a	<u>AsA</u> ^a	<u>NA</u> ^a	<u>Other</u> ^a	<u>Totals</u>
Psychosocial Development	249 (9.8)	16 (9.4)	9 (8.4)	1 (5.9)	2 (13.3)	6 (7)	283
Medical and Health Topics	227 (8.9)	5 (2.9)	15 (14)	1 (5.9)	0 (0)	4 (4.7)	252
Patient Health Problems	176 (6.9)	5 (2.9)	5 (4.7)	0 (0)	0 (0)	8 (9.3)	194
Risk Factors and At-Risk Groups	105 (4.1)	14 (8.2)	8 (7.5)	1 (5.9)	2 (13.3)	5 (5.8)	135
Adolescent Pregnancy and Sexuality	94 (3.7)	13 (7.6)	8 (7.5)	0 (0)	3 (20)	4 (4.7)	122
Immigration and Acculturation	0 (0)	0 (0)	9 (8.4)	3 (17.6)	0 (0)	2 (2.3)	14
Diversity and Culture Topics	9 (0.4)	3 (1.8)	4 (3.7)	2 (11.8)	0 (0)	2 (2.3)	20
Weight and Weight Control	87 (3.4)	3 (1.8)	3 (2.8)	0 (0)	0 (0)	6 (7)	99
Patient Health Behaviors	90 (3.5)	6 (3.5)	4 (3.7)	0 (0)	0 (0)	6 (7)	106
Totals (all funded topics)	1037 (40.7)	65 (38.1)	65 (60.7)	8 (47.1)	7 (46.6)	43 (50.1)	

^aEA = European American, AA=African American. L=Latino(a), AsA=Asian American, NA= Native Americans, Other=Other ethnic groups not mentioned or combined ethnic groups.