



Review article

Racial/ethnic representation in lifestyle weight loss intervention studies in the United States: A systematic review

Christina F. Haughton^a, Valerie J. Silfee^a, Monica L. Wang^b, Andrea C. Lopez-Cepero^a, David P. Estabrook^a, Christine Frisard^a, Milagros C. Rosal^a, Sherry L. Pagoto^{a,c}, Stephenie C. Lemon^{a,*}

^a University of Massachusetts Medical School, Worcester, MA, USA

^b Boston University School of Public Health, Boston, MA, USA

^c University of Connecticut, Storrs, CT, USA

ARTICLE INFO

Keywords:

Weight loss
Intervention
Review
Minority health
Race/ethnicity

ABSTRACT

Obesity remains a persistent public health and health disparity concern in the United States. Eliminating health disparities, particularly among racial/ethnic minority groups, is a major health priority in the US. The primary aim of this review was to evaluate representation of racial/ethnic sub-group members in behavioral weight loss interventions conducted among adults in the United States. The secondary aims were to assess recruitment and study design approaches to include racial/ethnic groups and the extent of racial/ethnic sub-group analyses conducted in these studies. PubMed, PsycInfo, Medline, and CINAHL were searched for behavioral weight loss intervention trials conducted in 2009–2015 using keywords: weight, loss, overweight, obese, intervention and trial. Most of the 94 studies included a majority of White participants compared to any other racial/ethnic group. Across the included studies, 58.9% of participants were White, 18.2% were African American, 8.7% were Hispanic/Latino, 5.0% were Asian and 1.0% were Native Americans. An additional 8.2% were categorized as “Other”. Nine of the 94 studies exclusively included minority samples. Lack of adequate representation of racial and ethnic minority populations in behavioral trials limits the generalizability and potential public health impact of these interventions to groups that might most benefit from weight loss. Given racial/ethnic disparities in obesity rates and the burden of obesity and obesity-related diseases among minority groups in the United States, greater inclusion in weight loss intervention studies is warranted.

1. Introduction

Eliminating health disparities in chronic conditions such as obesity, particularly among racial/ethnic minority groups, is a major health priority in the United States (U.S.) (Koh et al., 2011; U.S. Department of Health and Human Services, 2013). Health disparities is defined as differences in health outcomes related to social, economic, or environmental disadvantage that negatively affect groups of people (National Partnership for Action, n.d.). Over one third (38%) of American adults are obese, with disproportionately higher rates of obesity among Latinos (42.7%), African Americans (48.5%) and Alaskan Natives/Native Americans (43.7%) (Flegal et al., 2016; Ogden et al., 2015; Centers for Disease Control, 2015). These estimates exceed those of non-Latino Whites (37.1%) and Asian Americans (12.7%) (Ogden et al., 2015). Racial/ethnic minority groups in the U.S. also face

a higher burden of obesity-related diseases including cardiovascular disease, diabetes, and certain cancers (Frieden, 2013).

Achieving and sustaining healthy weight loss can reduce health problems and co-morbidities associated with obesity among burdened racial/ethnic groups (Guh et al., 2009; Cossrow and Falkner, 2004). Research suggests that a weight loss of 5% among obese adults can prevent or delay health problems caused by obesity (Pasanisi et al., 2001; Norman et al., 2003; Knowler et al., 2002), and even very modest weight loss may contribute to important health improvements (Ockene et al., 2012). Several key meta-analyses have shown that obesity treatment through behavioral interventions focused on diet and physical activity can produce significant and clinically meaningful short-term (i.e., six months) (Franz et al., 2007) and long-term (i.e., three years) (Ockene et al., 2012) weight loss in the general population. However, the literature on behavioral weight loss interventions for

* Corresponding author at: UMass Worcester Prevention Research Center, Division of Preventive and Behavioral Medicine, University of Massachusetts Medical School, 55 Lake Avenue North, Worcester, MA 01655, USA.

E-mail address: Stephenie.Lemon@umassmed.edu (S.C. Lemon).

<https://doi.org/10.1016/j.pmedr.2018.01.012>

Received 9 August 2017; Received in revised form 16 January 2018; Accepted 20 January 2018

2211-3355/© 2018 Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

racial/ethnic minorities is less conclusive.

There have been several systematic reviews examining the effectiveness of behavioral weight loss interventions among racial and ethnic subgroups (4 among African Americans, 2 among Latinos, 1 among Asians, and 2 among all racial/ethnic minorities) (Kong et al., 2014; Newton et al., 2014; Tussing-Humphreys et al., 2013; Fitzgibbon et al., 2012; Bender et al., 2014; Perez et al., 2013; Corona et al., 2015; Seo and Jaesin, 2008; Osei-Assibey et al., 2010). Overall, these studies have observed a range of weight losses among racial/ethnic groups, and not all weight changes were significant. This existing body of literature also has several methodological weaknesses, including small sample sizes (Newton et al., 2014; Tussing-Humphreys et al., 2013; Bender et al., 2014) and high attrition rates (Corona et al., 2015; Osei-Assibey et al., 2010). An additional review published in 2012 found that males, especially ethnic minority males, are underrepresented in behavioral weight loss trials, with those representing only 1.8% of participants in the studied samples and no studies specifically targeting ethnic minority males (Pagoto et al., 2012). Recent examinations of racial/ethnic representation in behavioral weight loss trials are lacking. This review aims to fill that gap.

In 1993, the NIH Revitalization Act and Federal Law was enacted and required that racial/ethnic minority groups, as well as women, be included in federally funded human subject research studies as appropriate for the proposed goals and aims of the study (NIH Policy and Guidelines on the Inclusion of Women and Minorities as Subjects in Clinical Research, n.d.). Despite this, underrepresentation of minorities in research has been documented in numerous health related clinical trials (Kanakamedala and Haga, 2012; Geller et al., 2011). Barriers for participation of minorities may include mistrust, fear, and stigma of participation, and competing demands (George et al., 2014). A proven strategy to improve recruitment, participation and retention entails involving the community in study design, sampling, recruitment, data collection, and intervention delivery (Bonevski et al., 2014).

The primary goal of this systematic review is to evaluate racial/ethnic inclusion in behavioral weight loss trials published from 2009 to 2015, extending previous reviews that examined racial/ethnic representation in behavioral weight loss interventions until 2009. This review is a secondary analysis of data abstracted for a systematic review assessing methodological quality of behavioral weight loss studies published in this time period (Lemon et al., 2016). The secondary aims were to assess recruitment and study design approaches used to include racially and ethnically diverse samples and to determine the extent to which additional analyses of weight loss outcomes by racial/ethnic subgroups were conducted in these studies.

2. Methods

2.1. Data sources and search strategy

A literature search was conducted using four online databases (i.e. PubMed, PsycInfo, Medline, and CINAHL) for behavioral weight loss intervention trials conducted among adults in the U.S. and published between January 1, 2009 and December 31, 2015. Key words used in these searches included “weight”, “loss”, “overweight”, “obese”, “intervention”, and “trial”. The reference sections of eligible articles for full text review were also reviewed for additional relevant articles.

2.2. Inclusion and exclusion criteria

Inclusion criteria for the efficacy and effectiveness studies selected for this review were: (1) measured weight loss as an outcome, (2) implementation and evaluation of behavioral intervention for developing healthy eating and/or physical activity skills for weight loss, (3) study samples comprised of adult participants (≥ 18 years) who were non-hospitalized and non-institutionalized, (4) studies had a follow-up of 6 months or longer, (5) publication in peer-reviewed journal between

January 1, 2009 and December 31, 2015 (6), studies were conducted in the U.S., (7) studies were randomized controlled trials and (8) studies were published in English language.

Studies were excluded if they met any of the following criteria: (1) evaluation of pharmacological, surgical, environmental or policy interventions only (2) basic science studies, (3) study focused on program evaluation, (4) studies focused on survey development, (5) studies of weight maintenance or weight gain prevention, and (6) studies of secondary/mediation analysis of a trial. For interventions that yielded multiple publications meeting inclusion criteria, only the article with the final assessment point was reviewed.

2.3. Article selection and coding criteria

Titles of articles generated in the initial search were screened for inclusion. Abstracts of articles deemed relevant for inclusion were reviewed for eligibility. Two authors (CH, SL) reviewed each abstract separately (90.1% agreement) and discussed discrepancies in eligibility until a consensus of inclusion or exclusion was determined. Articles that met inclusion criteria based on the abstract review were selected for a full text review using a standardized data abstraction form. The reference sections of articles eligible for full text review were searched for additional articles that met inclusion criteria. Articles that remained eligible after the full text review process were included in the systematic review.

Initial coding criteria for data abstraction form was developed and tested on a set of five randomly selected articles that met eligibility for full text review. Each item on the form was reviewed and discussed for meaning and clarity. This process was repeated with another set of five randomly selected articles that met eligibility for full text review until complete consensus on all coding items was achieved. A document describing agreed upon coding procedures was used by each author during full text article review. Two authors reviewed each article and met to discuss results until consensus on abstracted data points and article eligibility was reached. Inter-rater agreement (IRA) between coders was calculated for each abstracted variable and reported by each item below.

3. Race/ethnicity categories

The approach of assessing race/ethnicity in the study was coded as self-report, medical records, or both. The racial/ethnic categories were coded as White, African American, Latino/Hispanic, Asian, Native American, or “Other”. The category “Other” was used when racial/ethnic categories were not reported, were unable to be determined, or was a category used by study investigators to describe the sample. Study participants also were included in the “Other” category when the entire sample’s racial/ethnic distribution was not presented (e.g. only presented the percent of the sample that was white), and when investigators used “two or more races” as a category to describe the sample but did not specify the races included. (IRA = 100%). The number of participants in each racial/ethnic category was determined. When race/ethnicity was presented as a percent of the study sample, calculations were conducted to estimate the number of participants in each category. When race and ethnicity were listed as two separate variables, both were reported.

3.1. Study design and recruitment strategies to enhance racial and ethnic minority group participation

Articles were searched to determine if the investigators described recruitment strategies, particularly focusing on methods that enhanced the recruitment of racial and ethnic minorities. Coders described recruitment strategies used in the study. Articles were coded as to whether or not they intended to recruit a diverse racial/ethnic sample and/or failed to include descriptions of approaches to recruit a diverse

Download English Version:

<https://daneshyari.com/en/article/8818651>

Download Persian Version:

<https://daneshyari.com/article/8818651>

[Daneshyari.com](https://daneshyari.com)