


Weight Loss Program Preferences of Men Working in Blue-Collar Occupations: A Qualitative Inquiry

American Journal of Men's Health
September-October 1–9
© The Author(s) 2022
Article reuse guidelines:
sagepub.com/journals-permissions
DOI: 10.1177/15579883221117932
journals.sagepub.com/home/jmh


Melissa M. Crane¹ , Katerina Newman¹,
Jeni Hebert-Beirne², Eulàlia P. Abril³, Lynda H. Powell¹,
and Bradley M. Appelhans¹

Abstract

Men who work in blue-collar occupations (skilled and unskilled trades) experience high rates of obesity and comorbid conditions. This group is underrepresented in behavioral interventions for weight management, which may stem from a mismatch between the features of available programs and these men's preferences. This qualitative study explored the views of these men, their experiences with weight loss, their preferences for weight loss programs, and messaging related to these programs. We conducted remote interviews with 20 men (age: 43 ± 13 years, $M \pm SD$) currently working in blue-collar occupations (50% construction, 25% transportation, and 25% manufacturing) who had body mass indices (BMIs) in the overweight/obese categories ($BMI: 33 \pm 6 \text{ kg/m}^2$). Deductive codes and summary themes were developed and discussed by the first two authors. A selection of transcripts was reviewed following theme development to confirm accuracy of the themes. Most participants ($n = 16, 80\%$) reported a prior weight loss attempt. The most common approaches to weight loss reported were increased exercise and following their own approach to changing diet (e.g., "eating less junk food"). For program and message preferences, two major themes emerged: participants wanted accurate and trustworthy information and wanted programs that fit their lifestyle. Results suggest that weight loss programs targeting men working in blue-collar occupations should emphasize the accuracy of information related to the program and the ease of incorporating it into participants' lifestyles. There is an urgent need to incorporate these preferences into effective programs.

Keywords

obesity, behavioral issues, health promotion and disease prevention, health care issues, behavioral research, research, qualitative research, research, work-related health, occupational health

Received February 16, 2022; revised July 11, 2022; accepted July 18, 2022

The prevalence of obesity has reached an all-time high worldwide (Ogden et al., 2020; Peralta et al., 2018; Talukdar et al., 2020) and the connection between obesity and numerous comorbidities, and excess mortality has been well established (Flegal et al., 2013; Mozaffarian et al., 2015; White et al., 2017). Men and women both have high rates of obesity, for example, in the United States, 43.0% of men and 41.9% of women 41.9% have obesity (Ogden et al., 2020) which mirrors the similar prevalence by gender in developed economies worldwide (21.2% vs. 24.5%; Talukdar et al., 2020). Both genders are at risk for obesity-related conditions, including diabetes, heart disease and stroke, and some cancers (Alonso

et al., 2021; White et al., 2017; Xu et al., 2018). Despite similar risk levels, men are significantly less likely than

¹Department of Family and Preventive Medicine, Rush University Medical Center, Chicago, IL, USA

²Division of Community Health Sciences, School of Public Health, University of Illinois Chicago, Chicago, IL, USA

³Department of Communication, University of Illinois Chicago, Chicago, IL, USA

Corresponding Author:

Melissa M. Crane, Assistant Professor, Department of Family and Preventive Medicine, Rush University Medical Center, 1700 W. Van Buren St., Ste 470, Chicago, IL 60612, USA.
Email: melissa_m_crane@rush.edu



women to attempt weight loss (Dorsey et al., 2010; Duncan et al., 2011; Kuk et al., 2009), participate in behavioral weight loss research studies (Franz et al., 2007; Pagoto et al., 2011; Robertson et al., 2016), participate in commercial weight loss programs (Gudzune et al., 2015), or undergo bariatric surgery (Adams et al., 2017). Therefore, men are less likely than women to experience the potential health benefits associated with weight loss (LeBlanc et al., 2018; Ma et al., 2017).

One subgroup of men with especially low participation rates in weight loss programs is those working in blue-collar occupations, alternatively referred to as skilled and unskilled trades. These occupations are defined by the U.S. Department of Labor as “precision production, craft, and repair occupations; machine operators and inspectors; transportation and moving occupations; handlers, equipment cleaners, helpers, and laborers” (US Department of Labor, 2016). These industries are male-dominated, and men who work in them are at increased risk for obesity and related comorbidities compared to the general population (Apostolopoulos et al., 2013; Sieber et al., 2014; Strickland et al., 2017). For example, one study reported type 2 diabetes is more than twice as prevalent among truck drivers compared to the general population (Sieber et al., 2014). Compared to other industries, overweight or obesity in blue-collar industries yields greater reduction in job performance and productivity, increases risk for injury, and generates higher indirect costs associated with obesity (e.g., costs due to absenteeism) (Anderson et al., 2012; Kudel et al., 2018). Together, these data indicate men from blue-collar industries would greatly benefit from participation in comprehensive weight loss programs.

Health promotion interventions for men working in blue-collar occupations have been developed and tested in the past. For example, interventions for smoking cessation have been well studied in this population and have reported moderate success (e.g., Feltner et al., 2016; Sorensen et al., 2004), but other behaviors related to metabolic outcomes have been less well characterized (Crane et al., 2021). There are specific challenges faced by this population that will need to be considered when developing a targeted intervention. For example, surveys of the foods available in work environments have demonstrated that many of the workers in these professions have little access to healthy foods while at work and little access to interventions that would support attempts to change behaviors. (Apostolopoulos et al., 2011; Bscheiden et al., 2019; Nagler et al., 2013). Worksite wellness features, such as onsite workout facilities or weight control programs, are again lacking in worksites with a high proportion of blue-collar occupations (Linnan et al., 2008). Attitudinal barriers, such as believing that a physically active occupation is sufficient physical activity for health

(Caban-Martinez et al., 2014), may need to be addressed as well.

Given the high need for greater engagement in weight control programs in this population, there is a need to characterize the preferences for weight control programs of men who work in blue-collar occupations. Better understanding of men's preferences for these programs will help to tailor programs to this high-risk population. The goal of this qualitative study is to characterize men in blue-collar occupations' prior experiences with weight loss, their preferences for weight loss programs, and their ideas for how to build effective recruitment messages.

Method

Study Context

The study was conducted in April 2020-February 2021 in the Chicago, IL area. The majority of interviews were conducted remotely (either by telephone or web-based video, described below) due to the social distancing orders for the COVID-19 pandemic. The pandemic was mentioned in many interviews but was not a focus of the conversations. All interviews were conducted by the first author (MMC). She has a PhD in public health research focused on health behavior. Although she has never worked in a blue-collar occupation, she shared with participants that the majority of men in her family worked in blue-collar occupations as a way to both build rapport and encourage sharing. She had no prior relationship with any participants.

Recruitment and Sample

All procedures were approved by the Rush University Medical Center Institutional Review Board (18013105-IRB01). Participants were recruited for this study using online advertisements (i.e., Craigslist and Facebook), an “on-hold” message for a comprehensive medical center, and flyers placed in the community (e.g., hardware stores, union halls). Recruitment messages described the study as gathering opinions on health and weight. This approach was taken to gather input from individuals who may not be currently interested in joining a weight loss program but for whom a program might be appropriate.

The sample included 20 individuals who identify as men aged 18 years and older and were employed in a non-managerial position in the categories of “Natural Resources, Construction, and Maintenance Occupations” or “Production, Transportation, and Material Moving Occupations” as defined by the 2018 Census Occupation Code List (United States Census Bureau, 2019). Initially, participants were required to self-report a body mass index (BMI) greater than 25 kg/m², but this requirement

was later increased to 30 kg/m². This requirement was increased because participants in the 25–30 kg/m² category were less like to report a personal interest in weight loss than those above 30 kg/m² and provided responses to interview questions that were less rich and detailed than those in the higher BMI category. BMI, though a flawed measure in some respects, was selected to identify participants who may be likely to benefit from weight loss treatment. Participants were required to be able to read and write in English and be a candidate for a future weight loss program (e.g., no significant cognitive impairment or mental illness, diagnosis of diabetes treated with insulin). Participants were required to live in the Chicago area to create a sample similar to those that may be involved in a future weight loss program conducted by the study team and in recognition that men living in rural areas may have different needs from those living in a metropolitan area (Abshire et al., 2021; Oliffe et al., 2015). Theoretical saturation was used such that recruitment stopped when the information in subsequent interviews did not yield additional novel information (Elo et al., 2014).

Procedures

Participants were screened for eligibility and scheduled a time for a telephone, video, or in-person interview. All participants received electronic and/or printed copies of the consent form prior to meeting for the interview. MMC reviewed the consent process and informed consent document with each individual participant, and participants electronically signed the consent document. Interviews were audio recorded and transcribed verbatim by a professional transcriptionist. Each transcript was checked for accuracy against the recording. The research team de-identified transcripts before analysis.

Following completion of the formal interview, participants completed a short demographic and health questionnaire. The questionnaire included questions about their work situation (shifts worked, union membership, and duration in their current field); demographic information (education, relationship status, race, and ethnicity), and health behaviors (tobacco use, alcohol use, and prior weight loss). Race and ethnicity information was collected as required by National Institutes of Health (NIH) funders and was asked in separate self-report questions. Questions about prior weight loss included whether they had intentionally lost weight, and their largest weight loss in one attempt (Klem et al., 1997).

The majority of interviews were conducted via online video conferencing (i.e., Zoom or WebEx; $n = 15$). Of these, two switched to telephone early in the interview due to technical issues and one was audio only. Four interviews were conducted over telephone and one was

conducted face-to-face. There were no discernible differences in interview quality or duration based on mode of interview. Participants were encouraged to be in a private location during the interview. Interviews ranged in length from 24 to 110 min (median 58 min), exclusive of the consenting process and questionnaire completion.

Interviews were conducted following a semi-structured questioning guide. Following introduction questions about work and hobbies, participants were asked about their (1) general views on weight, (2) motivations to lose/maintain weight, (3) personal experiences with weight loss, (4) preferences for weight loss programs, and (5) preferences for recruitment messages. The interviewer described a summary of the interview and main themes at the end of each session with the participant to ensure the interviewer's interpretation of the important themes were aligned with the participant's views. The first six interviews included a card-sorting activity (including hobbies, reasons for weight loss, and preferences for weight loss program components) to encourage participant engagement with the topics, but this was stopped due to challenges of using this technique during remote interviews. When the card sort was removed, the interview guide was modified to include open-ended questions with some items from the card sort used as follow-up prompts.

Analysis

Coding for this project was conducted by the first and second authors (MMC and KN) using a conventional content analysis approach (Hsieh & Shannon, 2005) focusing on themes developed from the manifest content of the transcripts. Both coders read the transcripts in their entirety before coding began. Dedoose (2018) was used to facilitate the analysis. Deductive a priori codes aligned with the five major questions listed above—only previous experiences with weight loss, preferences for weight loss programs, and preferences for messaging are included in this analysis. After initial segmenting was completed, coders met to identify and describe initial codes within each research question and themes across research questions. Codes were developed using both inductive and deductive approaches. For example, “messages” and “channels” were deductive codes developed along with the interview guide while “trustworthy source” was an inductive code that came from initial readings of the transcripts. Once codes were applied, overarching themes were developed and exemplar quotes for each theme were selected. All codes and themes were discussed between coders until agreement was reached. After coding and themes were agreed upon, MMC and KN reread select transcripts in their entirety to ensure completeness and accuracy of the coding and themes and to attend to

Table 1. Participant Characteristics.

Participant	Age	BMI	Maximum weight loss ^a	Industry	Education	Relationship status	Race/ethnicity ^b	Tobacco use	Alcohol use
Reported prior weight loss ^c									
P1	65	26.7	20–49 lbs	Production	High school	Single	Black	Never	Never
P2	47	26.8	10–19 lbs	Production	< Bachelors	Married	Hispanic/ Latino	Never	≤ Weekly
P3	28	27.3	10–19 lbs	Construction	< Bachelors	Single	Multiple races	Daily	Daily
P4	50	27.6	20–49 lbs	Maintenance	Bachelors	Partnered	White	Never	≤ Weekly
P5	29	30.1	20–49 lbs	Construction	< Bachelors	Partnered	Hispanic/ Latino	Never	≤ Weekly
P6	36	30.2	5–9 lbs	Construction	< Bachelors	Married	White	Never	≤ Weekly
P7	44	31.0	20–49 lbs	Transportation	< Bachelors	Single	Hispanic/ Latino	Never	≤ Weekly
P8	40	31.0	10–19 lbs	Construction	< Bachelors	Single	White	Never	≤ Weekly
P9	47	33.5	20–49 lbs	Construction	< Bachelors	Single	Hispanic/ Latino	Weekly	≤ Weekly
P10	44	35.2	20–49 lbs	Transportation	< Bachelors	Separated	White	Never	Never
P11	40	36.3	10–19 lbs	Construction	Bachelors	Married	White	Never	Daily
P12	40	36.9	5–9 lbs	Transportation	< Bachelors	Married	Multiple races	Never	≤ Weekly
P13	69	37.0	50–79 lbs	Transportation	< Bachelors	Married	Black	Never	≤ Weekly
P14	26	37.1	20–49 lbs	Construction	Bachelors	Married	Black	Never	Never
P15	44	43.7	20–49 lbs	Construction	< Bachelors	Separated	Black	Daily	≤ Weekly
P16	45	44.3	20–49 lbs	Transportation	Bachelors	Married	Black	Never	Never
No prior weight loss reported ^c									
P17	23	25.8	5–9 lbs	Construction	High school	Divorced	Black	Daily	≤ Weekly
P18	48	27.1	None	Construction	< Bachelors	Married	Hispanic/ Latino	Daily	Daily
P19	60	31.5	10–19 lbs	Production	High school	Single	White	Daily	Daily
P20	28	40.6	5–9 lbs	Production	High School	Partnered	Hispanic/ Latino	≤ Weekly	≤ Weekly

Note. BMI = body mass index.

^aMaximum weight loss was collected via a self-report questionnaire. ^bRace and ethnicity were collected via self-report in two questions. For clarity, responses were categorized as: non-Hispanic Black, Hispanic/Latino, non-Hispanic multiple races, and non-Hispanic White. ^c“Reported prior weight loss” and “No prior weight loss” were derived from interview content.

analytic trustworthiness of interpretation of findings. Responses varied within each specific code therefore results from individual codes are included in the supplemental tables to report the breadth of responses to within each code. Results below focus on the two major cross-cutting themes that emerged from the analysis of program and messages preferences that represent the most consistent themes from the interviews. (Sandelowski & Leeman, 2012).

Results

Participants ($n = 20$) were diverse in terms of age (range 23–69 years), BMI (range 25.8–44.3 kg/m²), and race and ethnicity (Table 1). All participants reported completing high school, and 20% ($n = 4$) reported completing a bachelor's degree. Fifty percent ($n = 10$) of participants were employed in the construction industry, 25% ($n = 5$) in transportation, and 25% ($n = 5$) in manufacturing or maintenance occupations. Most had worked in their field

for at least 2 years (80%; $n = 16$), and nearly half (45%; $n = 9$) belonged to a labor union. The majority did have access to wellness or health promotion programs at work (70%; $n = 14$).

During interviews, 16 men reported trying to lose weight in the past (80%). Of these, all but two mentioned increasing physical activity as a primary weight loss method. This included joining a gym, using a fitness tracker, or engaging a personal trainer. The second most common approach, and often mentioned second, was making changes to their diet to lose weight. Changing diet was often described in general terms, such as “. . . avoid eating as much sugars and stuff of that nature . . . eating less like junk food . . . That's all really.” (P6). A minority of participants mentioned using unhealthy or unsustainable methods to lose weight. These included using herbal supplements, following “crash diets,” such as avoiding all carbohydrates, skipping meals/fasting, and extreme approaches to exercise. No participants reported previous experience with a comprehensive

weight loss program (such as a commercial program). One participant had previously had gastric banding and two reported prior one-on-one counseling for weight loss.

Importance of Accurate, Evidence-Based Information

Across the codes focused on descriptions of ideal weight loss programs and associated messaging included in Supplemental Tables 1 and 2, participants frequently included the theme of accurate information. First, participants wanted programs to provide the “right” information to lose weight. For a participant who was unable to describe what he thought was an ideal weight loss program, the prompt was shifted to asking what the worst thing a program could do he said: “Not showing me the right way of how to lose weight and how to manage weight, and how to eat right, telling me false information” . . . (P2). Though perceptions of the meaning of “right” varied (e.g., focus on diet or physical activity), participants emphasized that the information should include details on what would lead to weight loss. Second, participants spoke about the importance of experts as facilitators. There were a variety of ideas about who the expert would be (e.g., personal trainer vs. medical professional), but the desire was for a person to have experience in weight loss:

You have to hire someone that’s educated. The same with if you wanted a door installed. You wouldn’t necessarily educate yourself on how to do it and then, go about doing it and install the door. You will hire someone who specializes in that. So, I figure if weight loss is the goal, then, you hire someone who specializes in that. (P15)

Finally, in describing desired recruitment messages, many participants wanted firsthand recommendations that emphasized the program success, as

They sell people on the before and after pictures and its models, anyway, but if you really, instead of before and after pictures, really have people giving their testimony like, “Yeah, I did that program.” (P15)

Fit Into Lifestyle; Accessible Expectations

The second cross-code theme that emerged was a desire for programs and recommendations that fit into one’s lifestyle. Multiple participants noted that they were interested in changing their eating habits, but the recommended changes need to include room for personalization: “what they [participants] economically can afford and adjusting their dietary habits to better fit their lifestyle and their physical fitness, their job, their life” (P11).

Participants wanted a program that would not intrude into their life too much. The suggestion was that weight management needed to be integrated into their life rather than added to it:

Work already takes a lot of mental space already, so I don’t want to feel like I’m clocking in for work [when working on weight loss] . . . I’ve got to definitely clock out mentally, so I can clock in with my family. It’s just sometimes I feel like there’s not enough time in the day and I have to get myself ready tomorrow. So, I just wonder how can it be that everything and weight loss just come together. (P12)

Similarly, if this program was developed, participants wanted messaging that indicated the program would not be burdensome:

If you add the words like convenience and like easy or simple, or kind of like make it known that you’re not trying to sell anything, like equipment, or like anything crazy like that. You just trying to be healthier. (P5)

Discussion

Using semi-structured interviews, this study investigated the experiences and preferences for weight loss programs among men working in blue-collar occupations. Most of the participants had tried and lost weight in the past but very few had any experience with outside support in their weight loss efforts. Themes that emerged included a desire for accurate information and programs that can be integrated into the participants’ lifestyles.

Participants’ desire for accurate information is perhaps unsurprising when considering their larger circumstances. Men are less likely than women to take part in preventive health care visits (Vaidya et al., 2012) and health care providers are less likely to recommend weight loss for men than women (Anderson et al., 2001; Yaemsiri et al., 2011). Therefore, men may not have the opportunity to discuss behaviors, such as diet and physical activity with medical providers. Despite this, most men in this study have had weight loss experience that has largely been carried out through independent methods. These efforts may or may not include effective strategies, which mirrors attempts to lose weight by men seen in the general population (Han et al., 2019). Several men reported using methods that are risky and unlikely to lead to sustained weight loss. These prior experiences have likely led participants to distrust weight loss products and programs, for fear of being sold something unnecessary or ineffective leading to a desire for accurate information from trustworthy sources. The concern about being “sold” an unneeded and ineffective product will need to be addressed to engage this population in weight control programs.

Similar to our study, prior studies of men's preferences for weight loss have identified a desire for programs that can be incorporated into their lifestyle. These studies have reported that men want diet recommendations that allow personalization, programs delivered via technology, such as text messages and internet delivered programs, or programs delivered in locations, such as at home and in fitness centers (de Souza & Ciclitira, 2005; Garcia et al., 2017; Sabinsky et al., 2007; Wolfe & Smith, 2002). Incorporating these preferences in programs developed for men of mixed-occupational classes, results in programs that are well liked and effective for men (Garcia et al., 2019; Hunt et al., 2013; Morgan et al., 2011). Incorporating these approaches into a program for men working in blue-collar occupations would likely also be beneficial.

Despite this study being described to participants as focused on gathering viewpoints from "men working in blue-collar occupations," few participants organically mentioned their work situation when describing either their ideal program or messaging. Though we are unable to say why, there are several possible explanations. First, few men in this sample have access to work-based health promotion programs. Of the 30% who were aware of these programs being offered at their work, only half of those participated. Because few participants had participated in work-based health promotion, few participants men thought to describe them as part of a desired program. Second, the men in the sample who did mention work in their descriptions were sometimes negative about incorporating weight loss into the worksite, expressing a desire to keep work and "life" separate. Finally, the participants may not realize how strongly their work situation influences their health behaviors and how a tailored program could be more effective than a standard program. Work is an important determinant of health status (Ahonen et al., 2018) and programs tailored to work situations tend to be more effective than non-tailored programs (Crane et al., 2021). Despite this acknowledgment in the scientific community, this may not be common knowledge outside the specialized research community. Given the emphasis for accurate information regarding weight loss programs, there may be underlying beliefs that generic programs will not fit their work schedules and lifestyle around work, even it was not explicitly stated by the majority of participants. Using a participatory approach, such as engaging men from the occupational groups targeted, may help to bridge this divide and demonstrate to participants that the program would fit into their lifestyle, despite any challenges created by their occupational situation.

The results of this study must be viewed with its strengths and limitations in mind. The first limitation is

that we did not recruit a purposive sample (e.g., those with or without weight loss experience), so that multiple viewpoints are included without differentiation. Recruitment of a sample of individuals who had some experience with organized weight loss may have provided different answers based on their prior experiences. Second, conducting a second interview with participants may have yielded different themes. Many participants verbalized hesitation in their responses because they "hadn't thought about this before." Finally, the interviewer was not a man or a member of the studied community. There is uncertainty about who would be best to interview men (e.g., gender or occupation matched) (Schwalbe & Wolkomir, 2002). Despite these limitations, this study includes several strengths. First, because the interviewer was not a member of the target community, attention was given to the positionality of the interview/interviewee relationship. The interviewer took steps to minimize the power differentials in the interview (i.e., provided information on her background, use of her name vs. title). Rapport was evident through participants' use of casual language (swearing) and participation in additional studies conducted by the study team. Second, a semi-structured interview guide was used to standardize the questions and prompts across participants. Using the same interviewer throughout the study, interviews were conducted consistently across participants. Finally, analysis was conducted using an iterative process with coders returning to the transcripts frequently to ensure accuracy of interpretations.

These men who work in blue-collar occupations have little experience with organized weight loss programs. However, if the programs are developed with solutions to logistical barriers and demonstrable trust, they would be interested in improving their health through weight management. There is an urgent need to tailor programs to occupational situations without relying on embedding the programs into worksite may be necessary to optimize treatment trust and credibility and, therefore, appeal for this high-risk group.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

Research reported in this publication was supported by the National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health under Award Number K01DK119457. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.

ORCID iD

Melissa M. Crane  <https://orcid.org/0000-0002-1458-2692>

Supplemental Material

Supplemental material for this article is available online.

References

- Abshire, D. A., Wippold, G. M., Wilson, D. K., Pinto, B. M., Probst, J. C., & Hardin, J. W. (2021). Rurality, gender and obesity: An intersectionality perspective on rural men's health. *American Journal of Public Health, 111*(10), 1761–1763.
- Adams, T. D., Davidson, L. E., Litwin, S. E., Kim, J., Kolotkin, R. L., Nanjee, M. N., Gutierrez, J. M., Frogley, S. J., Ibele, A. R., Brinton, E. A., Hopkins, P. N., McKinlay, R., Simper, S. C., & Hunt, S. C. (2017). Weight and metabolic outcomes 12 years after gastric bypass. *New England Journal of Medicine, 377*(12), 1143–1155.
- Ahonen, E. Q., Fujishiro, K., Cunningham, T., & Flynn, M. (2018). Work as an inclusive part of population health inequities research and prevention. *American Journal of Public Health, 108*, 306–311.
- Alonso, A., Aparicio, F. H. J., Benjamin, E. J., Bittencourt, M. S., Callaway, C. W., Carson, F. A. P., Chamberlain, F. A. M., Kissela, B. M., Knutson, F. K. L., & Lee, C. D. (2021). Heart Disease and Stroke Statistics—2021 Update. *Circulation, 143*(8), e254–e743.
- Anderson, C., Peterson, C. B., Fletcher, L., Mitchell, J. E., Thuras, P., & Crow, S. J. (2001). Weight loss and gender: An examination of physician attitudes. *Obesity Research, 9*(4), 257–263.
- Anderson, J. E., Govada, M., Steffen, T. K., Thorne, C. P., Varvarigou, V., Kales, S. N., & Burks, S. V. (2012). Obesity is associated with the future risk of heavy truck crashes among newly recruited commercial drivers. *Accident Analysis and Prevention, 49*, 378–384.
- Apostolopoulos, Y., Somez, S., Shattell, M. M., Gonzales, C., & Fehrenbacher, C. (2013). Health survey of U.S. long-haul truck drivers: Work environment, physical health, and healthcare access. *WORK, 46*, 113–123.
- Apostolopoulos, Y., Sonmez, S., Shattell, M., Haldeman, L., Strack, R., & Jones, V. (2011). Barriers to truck drivers' healthy eating: Environmental influences and health promotion strategies. *Journal of Workplace Behavioral Health, 26*, 122–143.
- Bschaden, A., Rothe, S., Schöner, A., Pijahn, N., & Stroebele-Benschop, N. (2019). Food choice patterns of long-haul truck drivers driving through Germany, a cross sectional study. *BMC Nutrition, 5*(1), 56. <https://doi.org/10.1186/s40795-019-0326-3>
- Caban-Martinez, A. J., Lowe, K. A., Herrick, R., Kenwood, C., Gagne, J. J., Becker, J. F., Schneider, S. P., Dennerlein, J. T., & Sorensen, G. (2014). Construction workers working in musculoskeletal pain and engaging in leisure-time physical activity: Findings from a mixed-methods pilot study. *American Journal of Industrial Medicine, 57*(7), 819–825. <https://doi.org/10.1002/ajim.22332>
- Crane, M. M., Halloway, S., Walts, Z. L., Gavin, K. L., Moss, A., Westrick, J. C., & Appelhans, B. M. (2021). Behavioural interventions for CVD risk reduction for blue-collar workers: A systematic review. *Journal of Epidemiology and Community Health, 75*, 1236–1243. <https://doi.org/10.1136/jech-2021-216515>
- Dedoose. (2018). *Dedoose, web application for managing, analyzing, and presenting qualitative and mixed method research data (Version 8.0.35)*. SocioCultural Research Consultants, LLC. www.dedoose.com
- de Souza, P., & Ciclitira, K. E. (2005). Men and dieting: A qualitative analysis. *Journal of Health Psychology, 10*(6), 793–804.
- Dorsey, R. R., Eberhardt, M. S., & Ogden, C. L. (2010). Racial and ethnic differences in weight management behavior by weight perception status. *Ethnicity and Disease, 20*(3), 244–250.
- Duncan, D. T., Wolin, K., Scharoun-Lee, M., Ding, E. L., Warner, E. T., & Bennett, G. G. (2011). Does perception equal reality? Weight misperception in relation to weight-related attitudes and behaviors among overweight and obese US adults. *International Journal of Behavioral Nutrition and Physical Activity, 8*(20). <https://doi.org/10.1186/1479-5868-8-20>
- Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open, 4*(1), 2158244014522633.
- Feltner, C., Peterson, K., Palmieri Weber, R., Cluff, L., Coker-Schwimmer, E., Viswanathan, M., & Lohr, K. N. (2016). The effectiveness of total worker health interventions: A systematic review for a national institutes of health pathways to prevention workshop. *Annals of Internal Medicine, 165*(4), 262–269. <https://doi.org/10.7326/m16-0626>
- Flegal, K. M., Kit, B. K., Orpana, H., & Graubard, B. I. (2013). Association of all-cause mortality with overweight and obesity using standard body mass index categories: A systematic review and meta-analysis. *JAMA, 309*(1), 71–82. <https://doi.org/10.1001/jama.2012.113905>
- Franz, M. J., VanWormer, J. J., Crain, A. L., Boucher, J. L., Histon, T., Caplan, W., Bowman, J. D., & Pronk, N. P. (2007). Weight-loss outcomes: A systematic review and meta-analysis of weight-loss clinical trials with a minimum 1-year follow-up. *Journal of the American Dietetic Association, 107*(10), 1755–1767.
- Garcia, D. O., Valdez, L. A., Aceves, B., Bell, M. L., Humphrey, K., Hingle, M., McEwen, M., & Hooker, S. P. (2019). A gender- and culturally sensitive weight loss intervention for Hispanic men: Results from the ANIMO pilot randomized controlled trial. *Health Education and Behavior, 46*(5), 763–772. <https://doi.org/10.1177/1090198119853011>
- Garcia, D. O., Valdez, L. A., & Hooker, S. P. (2017). Hispanic male's perspectives of health behaviors related to weight management. *American Journal of Men's Health, 11*, 1547–1559.
- Gudzune, K. A., Doshi, R. S., Mehta, A. K., Chaudhry, Z. W., Jacobs, D. K., Vakil, R. M., Lee, C. J., Bleich, S. N., & Clark, J. M. (2015). Efficacy of commercial weight-loss programs: An updated systematic review. *Annals of Internal Medicine, 162*, 501–512.

- Han, L., You, D., Zeng, F., Feng, X., Astell-Burt, T., Duan, S., & Qi, L. (2019). Trends in self-perceived weight status, weight loss attempts, and weight loss strategies among adults in the United States, 1999-2016. *JAMA Network Open*, *2*(11), e1915219–e1915219.
- Hsieh, H.-F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research*, *15*(9), 1277–1288.
- Hunt, K., Gray, C. M., McCann, C., Mutrie, N., & Wyke, S. (2013). “You’ve got to walk before you run”: Positive evaluations of a walking program as part of a gender-sensitized, weight-management program delivered to men through professional football clubs. *Health Psychology*, *32*, 57–65.
- Klem, M. L., Wing, R. R., McGuire, M. T., Seagle, H. M., & Hill, J. O. (1997). A descriptive study of individuals successful at long-term maintenance of substantial weight loss. *American Journal of Clinical Nutrition*, *66*(2), 239–246.
- Kudel, I., Huang, J. C., & Ganguly, R. (2018). Impact of obesity on work productivity in different US occupations: Analysis of the National Health and Wellness Survey 2014 to 2015. *Journal of Occupational and Environmental Medicine*, *60*, 6–11. <https://doi.org/10.1097/JOM.0000000000001144>
- Kuk, J. L., Ardern, C. L., Church, T. S., Herbert, J. R., Sui, X., & Blair, S. N. (2009). Ideal weight and weight satisfaction: Association with health practices. *American Journal of Epidemiology*, *170*, 456–463.
- LeBlanc, E. S., Patnode, C. D., Webber, E. M., Redmond, N., Rushkin, M., & O’Connor, E. A. (2018). Behavioral and pharmacotherapy weight loss interventions to prevent obesity-related morbidity and mortality in adults: Updated evidence report and systematic review for the US Preventive Services Task Force. *JAMA*, *320*(11), 1172–1191.
- Linnan, L., Bowling, M., Childress, J., Lindsay, G., Blakey, C., Pronk, S., Wiekert, S., & Royall, P. (2008). Results of the 2004 national worksite health promotion survey. *American Journal of Public Health*, *98*(8), 1503–1509.
- Ma, C., Avenell, A., Bolland, M., Hudson, J., Stewart, F., Robertson, C., Sharma, P., Fraser, C., & MacLennan, G. (2017). Effects of weight loss interventions for adults who are obese on mortality, cardiovascular disease, and cancer: Systematic review and meta-analysis. *BMJ*, *359*, Article j4849.
- Morgan, P. J., Warren, J. M., Lubans, D. R., Collins, C. E., & Callister, R. (2011). Engaging men in weight loss: Experiences of men who participated in the male only SHED-IT pilot study. *Obesity Research & Clinical Practice*, *5*, e239–e248.
- Mozaffarian, D., Benjamin, E. J., Go, A. S., Arnett, D. K., Blaha, M. J., Cushman, M., de Ferranti, S., Despres, J. P., Fullerton, H. J., Howard, V. J., Huffman, M. D., Judd, S. E., Kissela, B. M., Lackland, D. T., Lichtman, J. H., Lisabeth, L. D., Liu, S., Mackey, R. H., Matchar, D. B., . . . on behalf of the American Heart Association Statistics Committee Stroke Statistics Subcommittee. (2015). Heart disease and stroke statistics—2015 Update: A report from the American Heart Association. *Circulation*, *131*, e29–e322. <https://doi.org/10.1161/CIR.0000000000000152>
- Nagler, E. M., Viswanath, K., Ebbeling, C. B., Stoddard, A. M., & Sorensen, G. (2013). Correlates of fruit and vegetable consumption among construction laborers and motor freight workers. *Cancer Causes and Control*, *24*(4), 637–647.
- Ogden, C. L., Fryar, C. D., Martin, C. B., Freedman, D. S., Carroll, M. D., Gu, Q., & Hales, C. M. (2020). Trends in obesity prevalence by race and Hispanic origin—1999-2000 to 2017-2018. *JAMA*, *324*(12), 1208–1210.
- Oliffe, J. L., Bottorff, J. L., Sharp, P., Caperchione, C. M., Johnson, S. T., Healy, T., Lamont, S., Jones-Bricker, M., Medhurst, K., & Errey, S. (2015). Healthy eating and active living: Rural-based working men's perspectives. *American Journal of Men's Health*, *1-9*. <https://doi.org/10.1177/1557988315619372>
- Pagoto, S. L., Schneider, K. L., Oleski, J. L., Luciani, J. M., Bodenlos, J. S., & Whited, M. C. (2011). Male inclusion in randomized controlled trials of lifestyle weight loss interventions. *Obesity*, *20*(6), 1234–1239.
- Peralta, M., Ramos, M., Lipert, A., Martins, J., & Marques, A. (2018). Prevalence and trends of overweight and obesity in older adults from 10 European countries from 2005 to 2013. *Scandinavian Journal of Public Health*, *46*(5), 522–529.
- Robertson, C., Avenell, A., Boachie, C., Stewart, F., Archibald, D., Douglas, F., Hoddinott, P., van Teijlingen, E., & Boyers, D. (2016). Should weight loss and maintenance programmes be designed differently for men? A systematic review of long-term randomised controlled trials presenting data for men and women: The ROMEO project. *Obesity Research and Clinical Practice*, *10*(1), 70–84.
- Sabinsky, M. S., Toft, U., Raben, A., & Holm, L. (2007). Overweight men's motivations and perceived barriers towards weight loss. *European Journal of Clinical Nutrition*, *61*, 526–531.
- Sandelowski, M., & Leeman, J. (2012). Writing usable qualitative health research findings. *Qualitative Health Research*, *22*(10), 1404–1413.
- Schwalbe, M. L., & Wolkomir, M. (2002). Interviewing men. In J. F. Gubrium, & J. A. Holstein (Eds.), *Handbook of Interview Research: Context & Method* (pp. 203-219). SAGE.
- Sieber, W. K., Robinson, C. F., Birdsey, J., Chen, G. X., Hitchcock, E. M., Lincoln, J. E., Nakata, A., & Sweeney, M. H. (2014). Obesity and other risk factors: The national survey of U.S. long-haul truck driver health and injury. *American Journal of Industrial Medicine*, *57*, 615–626.
- Sorensen, G., Barbeau, E., Hunt, M. K., & Emmons, K. (2004). Reducing social disparities in tobacco use: A social-contextual model for reducing tobacco use among blue-collar workers. *American Journal of Public Health*, *94*(2), 230–239. <https://doi.org/10.2105/ajph.94.2.230>
- Strickland, J. R., Wagan, S., Dale, A. M., & Evanoff, B. A. (2017). Prevalence and perception of risky health behaviors among construction workers. *Journal of Occupational and Environmental Medicine*, *59*, 673–678.

- Talukdar, D., Seenivasan, S., Cameron, A. J., & Sacks, G. (2020). The association between national income and adult obesity prevalence: Empirical insights into temporal patterns and moderators of the association using 40 years of data across 147 countries. *PLoS ONE*, *15*(5), Article e0232236.
- United States Census Bureau. (2019). *Industry and occupation code lists and crosswalks: 2018 Census Occupation Code List with Crosswalk*. Retrieved May 1, 2019, from <https://www.census.gov/topics/employment/industry-occupation/guidance/code-lists.html>
- US Department of Labor. (2016). *Bureau of labor statistics: Glossary*. Retrieved December 13, 2017, from <https://www.bls.gov/bls/glossary.htm>
- Vaidya, V., Partha, G., & Karmakar, M. (2012). Gender differences in utilization of preventive care services in the United States. *Journal of Women's Health*, *21*(2), 140–145.
- White, M. C., Shoemaker, M. L., Park, S., Neff, L. J., Carlson, S. A., Brown, D. R., & Kanny, D. (2017). Prevalence of modifiable cancer risk factors among U.S. adults aged 18–44 years. *American Journal of Preventive Medicine*, *53*, S14–S20.
- Wolfe, B. L., & Smith, J. E. (2002). Different strokes for different folks: Why overweight men do not seek weight loss treatment. *Eating Disorders*, *10*, 115–124.
- Xu, H., Cupples, L. A., Stokes, A., & Liu, C.-T. (2018). Association of obesity with mortality over 24 years of weight history: Findings from the Framingham Heart Study. *JAMA Network Open*, *1*(7), e184587–e184587.
- Yaemsiri, S., Slining, M. M., & Agarwal, S. K. (2011). Perceived weight status, overweight diagnosis, and weight control among US adults: The NHANES 2003-2008 Study. *International Journal of Obesity*, *35*, 1063–1070. <https://doi.org/10.1038/ijo.2010.229>