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# A Literature Synthesis of Health Promotion Research in Salons and Barbershops

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# Abstract

**Context**—Barbershops and beauty salons are located in all communities and frequented by diverse groups of people, making them key settings for addressing health disparities. No studies have reviewed the growing body of literature describing studies promoting health in these settings. This review summarized the literature related to promoting health within barbershops and beauty salons to inform future approaches that target diverse populations in similar settings.

**Evidence Acquisition**—We identified and reviewed published research articles describing formative research, recruitment, and health-related interventions set in beauty salons and barbershops. PubMed and other secondary search engines were searched in 2010 and again in 2013 for English-language papers indexed from 1990 through August 2013. The search yielded 110 articles, 68 of which were formerly reviewed, and 54 were eligible for inclusion.

**Evidence Synthesis**—Included articles were categorized as formative research (n=27), recruitment (n=7), or intervention (n=20). Formative research studies showed that owners, barbers/stylists, and their customers were willing participants, clarifying the feasibility of promoting health in these settings. Recruitment studies demonstrated that salon/shop owners will join research studies and can enroll customers. Among intervention studies, level of stylist/barber involvement was categorized. More than 73.3% of intervention studies demonstrated statistically significant results, targeting mostly racial/ethnic minority groups and focusing on a variety of health topics.

**Conclusions**—Barbershops and beauty salons are promising settings for reaching populations most at risk for health disparities. Although these results are encouraging, more rigorous research and evaluation of future salon- and barbershop-based interventions are needed.

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#### Introduction

Eliminating health disparities is a critically important public health priority.<sup>1</sup> Although challenging, a key step for addressing disparities is to increase reach, that is, the proportion of a population that participates in a program or intervention.<sup>2,3</sup> Finding places located in all communities, where diverse groups of individuals frequent regularly and return often, is one important strategy for increasing reach. Delivering health interventions in places where individuals live, work, play, pray, and socialize is needed.

Beauty salons and barbershops are located in all communities—small and large, urban, rural and suburban-and have received increasing attention as a place for reaching and engaging with large numbers of individuals, including those not reached through traditional settings. Beauty salons/barbershops are considered a "safe" space where individuals can focus on personal appearance, receive community news, and socialize. A unique and trusting relationship exists between the customer and barber or stylist. Historically, salons and barbershops have been instrumental to the economic, political, and social development of their communities.<sup>4</sup> Luque et al.'s recent review<sup>5</sup> synthesized the peer-reviewed literature on barbershop-based programs with an aim toward offering lessons learned for researchers and practitioners; however, only 16 articles were abstracted and were limited to studies targeting black men in urban settings. Feasibility and intervention studies were combined, and although training of barbers was reported, there was no assessment of their involvement in the interventions. No studies have systematically reviewed both beauty salon and barbershop literature, nor has the involvement of barbers/stylists in these interventions been examined. Given the priority of addressing health disparities, a review of beauty salon- and barbershop-based studies is timely and may inform future research and practice.

The purpose of this study is to review and synthesize the existing published literature to consider the following research questions: (1) what formative research has taken place in barber shops and beauty salons and what can we learn from them? (2) What do we know about recruitment of shops/salons, stylists/barbers, and their customers? (3) What types of intervention studies have taken place in barbershops and beauty salons and with what results?

#### Methods

Published research articles describing interventions with experimental, quasi-experimental or non-experimental designs, formative research conducted to inform the development of a program or intervention,<sup>6</sup> and studies recruiting participants or assessing recruitment techniques and approaches set in beauty salons or barbershops were eligible. PubMed was searched in 2011 and again in 2013 for English-language papers indexed from 1990 through August 2013. Secondary searches were conducted in Psycinfo, Academic Search Premier, Medline, the Cumulative Index to Nursing and Allied Health, Health Source Nursing and Academic Edition, Social Work Abstracts, and Google Scholar. Search terms included *salon, beauty salon*, or *barbershop* and *health promotion, health education, intervention, recruitment*, or *screening. Nail* and *tanning* were used as exclusion terms.

The literature search in 2010 and updated in 2013 yielded 113 articles that were reviewed for relevance by examining titles and abstracts. After the initial review, 42 articles were omitted for failing to describe health-related interventions, formative research, or recruitment studies set in salons or barbershops; therefore, 68 articles were formally reviewed. Articles were then excluded if they described the existence of a program without detailing program features (n=15) or if they described an intervention that had not been implemented (n=2). This left a total of 54 eligible articles.

#### **Data Synthesis**

The second author reviewed, extracted data, and coded all studies. The first author then reviewed all studies and codes, and both authors agreed on the coding. Studies were categorized as formative research (n=27), recruitment (n=7), or intervention (n=20). Formative research described characteristics of the salon/barbershop environment, stylists, or customers. Feasibility studies and studies reporting on the development or piloting of barber/stylist training curriculum were included in the formative research category. Recruitment studies described the process of recruiting customers or shops/salons. Interventions presented details about health promotion programs or services delivered within salons or barbershops. Each intervention was reviewed for study design, implementation, use of educational materials, and extent of barber/stylist involvement. Interventions were categorized as barber/stylist-delivered if they were implemented either by stylists or barbers alone or in collaboration with research staff, but required significant barber or stylist effort. Collaboration may have included the use of researcher-developed educational materials. Researcher-delivered interventions were implemented by research staff with little to no barber/stylist participation. For example, program staff interacted directly with customers in the salon or barbershop setting, or barbers/stylists may have encouraged customers to participate but were not involved with intervention delivery.

Information on location, salon/barbershop setting, number of customers or stylists, target population (e.g., age, ethnicity, gender), intervention focus (e.g., cancer prevention), intervention objective (e.g., education or screening), use of incentives, study design, and use of community–based participatory research (CBPR) was extracted. Intervention effects included changes in biological indicators (e.g., blood pressure [BP]), behaviors (e.g., dietary intake), knowledge, or psychosocial factors (e.g., self-efficacy), as well as statistical significance of results, if available.

#### Results

#### **Formative Research Studies**

Twenty-seven formative research studies were set in salons or barbershops (Table 1). The majority (74%) took place in urban areas, and targeted African Americans (AAs; 70%). Nearly half of all studies (47.3%) focused on cancer. Methods for identifying salons/ barbershops included creating a community advisory board,<sup>7–11</sup> consulting with local AA church leaders,<sup>12</sup> state licensing records,<sup>7,11,13–15</sup> telephone directories,<sup>11,13,14,16,17</sup> searching the internet,<sup>11,18</sup> reviewing local AA newspapers for barbershops advertisements,<sup>16</sup> windshield tours,<sup>13,14,16</sup> and "snowballing" or identifying sites based on

referrals from barbers and community members.<sup>11,16</sup> Among these strategies, state licensing lists a good initial resource, but not sufficient for recruitment,<sup>11</sup> whereas snowballing and participation of the advisory board were cited as effective strategies for identifying salons/ shops.<sup>7,9–11,16</sup>

Formative research was used to determine the feasibility and appropriateness of implementing an intervention in salons or barbershops,<sup>7,9,10,13,16,19–24</sup> assessing customer baseline characteristics,<sup>10,12,17,19,25,26</sup> developing training materials,<sup>8,20</sup> conducting a needs assessment,<sup>27</sup> observing customer–stylist interactions,<sup>28</sup> and assessing stylist–customer relationships.<sup>29</sup> Eight studies used qualitative methods either alone or in combination with a quantitative survey.<sup>7,8,16,21,22,27,28,30</sup> Owners approved of implementing an intervention in their shop,<sup>7,10,16</sup> stylists/barbers were comfortable sharing health messages with customers,<sup>18,19,31</sup> and customers were willing to participate in interventions and receive health information in the salon/barbershop.<sup>10,16,19,21,23</sup> Two feasibility studies trained AA barbers to deliver prostate cancer education to customers.<sup>30,32</sup> Both trainings resulted in a significant increase in barber knowledge of prostate cancer and one found that barber knowledge was maintained after 3 months.<sup>30</sup>

#### **Recruitment Studies**

Seven studies used either salons or barbershops as recruitment sites for studies taking place either inside or outside the shop and recruited between 17 and 1552 customers (mean=522.5, SD=639.7). Two of these studies<sup>33,34</sup> used the same sample population and were counted as one study. Women were recruited from salons for a rape survivor study<sup>35</sup> and for a cross-sectional survey on personality traits.<sup>36</sup> AA men were recruited from barbershops for a study testing a conceptual model of medical mistrust<sup>33</sup> and two prostate cancer studies.<sup>37,38</sup> Three studies recruited participants for activities outside of the shop setting.<sup>35,37,38</sup> Three of the research teams formed relationships with owners in order to facilitate recruitment.<sup>33,35,38</sup>

The role of the barber varied: barbers recruited customers, administered study questionnaires,<sup>33</sup> and referred eligible customers to investigators.<sup>38</sup> Researchers recruited customers either directly in-person<sup>36</sup> or indirectly through flyers or word of mouth in the remainder of studies.<sup>35,38</sup> One study<sup>39</sup> assessed the effectiveness and cost-effectiveness of three salon–level recruitment strategies—referral, phone, and visit—and found that the Advisory Board referral method, in which members named salons they believed would meet eligibility criteria and might be interested, was more effective and had lower costs per recruited salon.

#### Intervention Studies

**Characteristics of beauty salon– and barbershop-based interventions**—Twenty articles described beauty salon– or barbershop-based interventions (Supplementary Table). One article described two interventions and was counted twice,<sup>40</sup> for a total of 21 reviewed intervention studies. Interventions were located in 15 different states, including California, seven states in the South, four in the Midwest, and three in the Northeast.

Table 2 shows that intervention studies were set in salons alone (43%), barbershops alone (43%) or in both barbershops and salons (14%). Seventy-one percent of interventions were barber/stylist-delivered and the remaining studies were primarily researcher-delivered. Most interventions targeted AAs or Afro-Caribbean customers (90.5%), and 43% targeted men only, 38% targeted women only, and 14% targeted both male and female customers. Recruited customers ranged from 20 to 14,000; customers were participants in all but one intervention,<sup>6</sup> which targeted owners. Stylists or owners were participants in 16 of 21 studies; the number of participants ranged from 2 to 700, with half reporting between 2 and 30 participating stylists or owners. Over half of all interventions reported using incentives for the stylist/barber, customer, or both.

The most prevalent intervention topic was cancer (47.6%), followed by hypertension, diabetes, kidney or cardiovascular disease, nutrition and physical activity, smoking, stroke, maternal and child health, organ donation, and general health and wellness. There were seven RCTs,  $^{41-47}$  four studies used a quasi-experimental design,  $^{40,48,49}$  and the remaining ten were non-experimental studies. Education or information sharing was the objective of a third of interventions, and the remainder focused on health behavior change, including efforts to increase screening behaviors. Health, behavioral, or psychosocial outcomes were addressed in over 70% of intervention studies. Four studies used qualitative methods as part of the intervention evaluation.<sup>50–53</sup> Barber/stylist-delivered interventions tended to focus on education or information-sharing<sup>42,44,49,53</sup> and behavior change, including screening behaviors.<sup>40,43–46,48,54</sup>

**Intervention outcomes**—Overall, among intervention studies reporting outcomes (n=15), ten had significant results (73.3%). Of these, five changed behavior such as mammography adherence,<sup>44</sup> hypertension control,<sup>40,45</sup> and fruit and vegetable consumption,<sup>48</sup> and four increased intentions or knowledge related to mammography,<sup>42</sup> stroke,<sup>49</sup> and cancer.<sup>50,55</sup> Interventions delivered by barbers/stylists that were most effective at changing customer behavior combined barber/stylist–delivered health messages with researcher-developed information. Two studies<sup>40,45</sup> used stories from peers as role models, and one<sup>48</sup> gave customers a starter kit to facilitate behavioral changes.

**Barber/stylist-delivered interventions**—Overall, barber/stylist-delivered interventions emphasized the stylist/barber training component and use of culturally appropriate intervention materials such as posters, brochures, videos, and information packets compared with researcher-delivered interventions. Victor et al. conducted an RCT in 15 barbershops in Dallas County, Texas, to address hypertension among AA men.<sup>45</sup> The study tested an intervention that included barber-delivered BP checks and health messaging, provider referrals, and educational displays of peer role model stories versus an educational pamphlet control group. At the 10-month followup, the experimental group had significantly higher rates of hypertension control compared with the control group (p=0.04).

Hess and colleagues<sup>40</sup> implemented two barbershop-based interventions described in one article: one researcher-delivered (Study 1) and the other barber-delivered (Study 2). The barber-delivered intervention trained barbers to perform, record, and interpret BP measurements on their AA male customers in addition to offering encouragement using

stories of success within the community.<sup>40</sup> Because Study 2 was offered to all male AA customers in the shop, the effect of the intervention was assessed by the level of customer exposure to the intervention in lieu of a control group. At the end of the 2-year intervention, increased exposure was associated with increased hypertension control (p=0.01).<sup>40</sup> Barbers received \$3 per completed BP screening card, \$50 each time a customer returned with a prescription and report card signed by a medical provider, and customers received a free haircut for returning the report card.

Resnicow et al.<sup>43</sup> conducted an RCT in beauty salons. Trained stylist delivered four motivational "health chats" adapted from Madigan and colleagues<sup>54</sup> that encouraged organ donation enrollment among AAs. Customers in the experimental group (n=1,370) received at least two health chats from their stylist regarding organ donation and two on chronic disease prevention, whereas the control group (n=1,419) received only chronic disease– prevention chats. Both groups received brochures on health topics and organ donation and both received organ donation registration cards. At 3 months, there was no significant difference in self–reported organ donation enrollment between experimental and control groups. The experimental group was 4.4 (95% CI=1.3, 15.3) times more likely to return a donor enrollment card compared to the control group, although only 97 cards were returned.

In partnership with AA women lay church leaders, Sadler et al.<sup>44</sup> randomly assigned salons to receive either breast cancer education or diabetes education as a control. Stylists in the experimental salons were trained to encourage customers to adhere to mammography screening guidelines via ancestral storytelling methods, bimonthly updated materials, plastic breast models, and posters and brochures that were placed throughout the salon. The control salons received an identical intervention on diabetes. At the 6-month follow-up, only 46% and 42% of the experimental and control group customers, respectively, were retained. Mammography screening adherence significantly increased in both groups; however, women aged 40 years in the experimental group had twice the odds of mammography adherence compared with the control group.

Holt and colleagues<sup>41</sup> randomized barbershops and trained barbers as Community Health Advisors to deliver prostate and colorectal cancer messages in intervention shops and hypertension and diabetes messages in control shops. Although underpowered, with only 26 of 163 participants having both baseline and follow-up data, there was a greater increase in prostate cancer screening behavior and knowledge among intervention versus control participants after the 3–month study period.

Among the 15 barber/stylist-delivered interventions, two employed quasi-experimental research designs.<sup>48,49</sup> A nutrition and physical activity intervention, which incorporated stylist-delivered education, motivational messages, and role modeling with researcher– developed information packets and a starter kit containing fruits, vegetables, and bottled water,<sup>48</sup> resulted in an increase in fruit and vegetable intake among the experimental customers by about 1.5 servings per day (p<0.01). There were no significant differences in minutes of physical activity per day or water consumption.<sup>48</sup> In the second study, researchers trained stylists to educate salon customers about stroke warning signs and risk

The remaining stylist/barber-delivered interventions employed non–experimental study designs.<sup>50,52,54,55</sup> Linnan et al.<sup>50</sup> combined specific stylist–delivered health messages with educational displays in the salon. Increased self–reported health conversations with stylists were associated with increased readiness to change diet, physical activity, and lifestyle to maintain a healthy weight both post-intervention and at 12-month follow-up.<sup>50</sup> Luque and colleagues<sup>55</sup> trained barbers to deliver prostate cancer education and provided researcher–developed culturally sensitive "tool boxes" that included brochures, posters, a DVD, prostate model, talking points, and a community resource guide. There was an increase in self-reported prostate cancer knowledge and likelihood to talk to a health provider, but also increased worry about prostate cancer. A limitation is that participants retrospectively reported pre-intervention knowledge and behaviors. Madigan et al.<sup>54</sup> found that 60% of salon customers who received diabetes, hypertension, and kidney disease messages from stylists or barbers made self-reported changes in targeted health behaviors.

**Researcher-delivered interventions**—Researcher-delivered interventions tended to focus on education or information-sharing and health promotion<sup>51,52,56–58</sup> as opposed to behavior change.<sup>40,59</sup> Three interventions provided on-site screening or exams and used the setting as a way to reach their target population by bringing health professionals into the barbershop.<sup>51,56,58</sup> In Hess and colleagues' Study 1,<sup>40</sup> research staff performed, recorded, and interpreted BP measurements for long–term hypertensive AA male customers in the barbershop. Study 2 differed only in the lack of direct barber involvement. BP decreased significantly (p<0.001), and hypertension treatment and control—validated by prescriptions or pill bottles—increased significantly (p<0.001 and p=0.002, respectively) from baseline to exit interview in the treatment group, whereas the control group remained unchanged for all outcomes.<sup>40</sup>

Linnan et al.<sup>59</sup> focused on promoting health by changing the shop environment through increasing restrictive smoking policies. Intervention materials were tailored to salon and barbershop owners' readiness to implement smoking bans: 48% of high-readiness shops implementing smoking bans and 12% of low-readiness shops implementing bans or stricter policies.<sup>59</sup> A pilot program developed by Magnus<sup>57</sup> provided individual nutrition and prostate cancer education to waiting customers in AA barbershops and resulted in increased perceived knowledge of nutrition related to prostate cancer prevention and high interest in the intervention components. Cowart and colleagues<sup>52</sup> reported an overall positive reaction by barbershop owners to a prostate cancer education program conducted by health professionals in conjunction with barber encouragement.

### Discussion

Beauty salons and barbershops are located in all communities and are a promising setting for reaching large numbers of individuals and addressing health disparities. This is the first review to summarize the growing number of publications describing how researchers and practitioners recruit, develop, intervene, and evaluate health programs in beauty salons and

barbershops. Specifically, our review uncovered 54 studies describing approaches within salons or barbershops, including their use in recruitment efforts, and to conduct formative research that informs the development of culturally and contextually relevant interventions. We also reviewed existing intervention studies, and discerned different levels of barber/ stylist involvement and reported their effects.

We explored the extent to which intervention studies achieved intended health outcomes. Although only 15 of 21 interventions measured outcomes, the majority (73%) achieved significant results. These results are promising; however, there is a clear need for more rigorous research designs, as ten studies had no control or comparison group<sup>50–59</sup> and several were limited by small sample sizes.<sup>41,48–50,55</sup> Measurement challenges exist in this new setting. Although at least one salon–based observational protocol has been published,<sup>28</sup> much more work is required to develop valid and reliable measures that will allow comparisons of results within and across salons and barbershops.

This review suggests that intervention and recruitment efforts may benefit from CBPR approaches, which involve collaboration between researchers, salon owners, barbers/stylists, and their customers. At least one study<sup>39</sup> documented cost-effective benefits of utilizing CBPR principles for achieving salon–based recruitment goals. Another study using CBPR strategies found that stylists felt that being referred by a community leader reinforced the importance of the health messages they were delivering to their customers.<sup>44</sup> Customer recruitment methods in barbershops/beauty salons are different because visit frequency and time spent is highly variable and most likely linked to a specific stylist or barber; if they leave, the customer will often move too. Thus, studies that report on best practices for recruitment processes and outcomes are highly useful to the field.

The most appropriate role for barbers/stylists in shop-based interventions merits careful consideration. Results indicate that barber/stylist-delivered interventions with research staff-developed materials had the most positive and statistically significant health outcomes.<sup>40,42–44,48–50,54,55</sup> Future studies should compare the effectiveness of different levels of barber/stylist involvement, both with and without researcher–developed intervention materials. Moreover, there may be important differences by age, experience, and health characteristics of barbers/stylists and their customers that should be investigated. The salon/shop environment may also influence the effectiveness of stylists/barbers in terms of health promotion. For example, high-volume shops with walk-in customers may have less time to exchange health information versus settings that provide hair braiding, nail, or spa services offering considerably more time for stylist–customer interaction. Both stylist/barber and shop characteristics warrant further investigation.

The acceptable level of stylist/barber involvement should be considered when planning shop-based interventions, including the time required for initial training, technical assistance/support required, and amount of work required to fully participate. Barbers were trained and incentivized to implement intervention components in several intervention studies, <sup>40,41,45,55</sup> which achieved positive outcomes.<sup>40,45,55</sup> In salons, several investigators<sup>42,48,50,54</sup> successfully trained stylists to deliver specific, structured, motivational messages combined with educational materials. Other successful stylist/barber

training strategies included sharing facts,<sup>40,41,44,45,50,55</sup> destroying myths,<sup>44</sup> distributing materials,<sup>40,43–45,55</sup> demonstrating/role playing "typical customer conversations,"<sup>10,50</sup> and asking survivors to tell their health story.<sup>49</sup> One training effort was effective in increasing stylist knowledge, self-efficacy, and readiness to change targeted health behaviors<sup>50</sup> and is now the basis of a stylist continuing education training program to retain licensure (CBH, unpublished observations, 2013). Luque et al.'s review of barbershop studies<sup>5</sup> revealed a gap in information about the training of barbers that is somewhat addressed by this information, but warrants additional investigation and planning for sustainability.

More research is needed to fully understand which topics and types of interventions are more or less suited for salons/shops given the timing, complexity, and resources/access required to achieve desired health outcomes. One strategy is to bring a health service into the shop/salon, such as BP screening or other screenings.<sup>40,45</sup> Moreover, with barber/stylist–delivered health interventions, potential privacy issues and unintended consequences of having a non-medical professional offer medical advice is a concern. Potential solutions include vigilant and well–trained research staff and study participants, consistent monitoring, and thoughtful process evaluation to carefully document all aspects of intervention implementation. Additionally, interesting recruitment questions about representativeness remain at both the salon/shop<sup>39</sup> and customer levels. We also urge investigators who consider working within beauty salons and barbershops to recognize that these are often considered "sacred spaces" that are segregated by gender and race/ethnicity. As such, CBPR approaches and a keen respect for the culture, norms, and physical/social space of these settings is essential.

Table 3 summarizes some key lessons learned. One predominant theme was that barbers and stylists were committed to sharing important health information with their clients, <sup>7,9,10,12,27,29–32,50,52</sup> are already engaged in this, <sup>7,9,18,21,24,28,31</sup> and believe that their customers are interested in receiving health information.<sup>10,16,21,30,41,52</sup> Male customers were open to receiving health information and medical services such as prostate cancer screening tests, BP and blood glucose measurements, physical measurements, and fitness assessments.<sup>10,40,51,56–58</sup> Given that men are less likely to have a primary care provider and utilize fewer preventive health services, barbershop-based interventions may prove particularly effective for improving men's health. A recent review of barbershop-based interventions concluded that barbershops are an appropriate setting for reaching AA men to promote health through health messaging and barber-delivered education and screening.<sup>5</sup> Stylists/barbers may be unique natural helpers who work in settings that appear to be favorable for addressing health issues; however, future research should examine this more explicitly.

This review has several noteworthy limitations. First, in the 21 intervention studies reviewed, only seven were randomized trials and many did not include comparison or control groups. Second, the outcome measures for the intervention studies were highly variable, thus no meaningful comparison across studies on effectiveness was possible. However, statistically significant effects on primary outcomes were reported whenever available. Third, given that this is an emerging literature with a relatively small number of studies, we included formative research, recruitment, and intervention studies set in both

beauty salons and barbershops to learn as much as possible from previous studies. As the number of studies grow and are rigorously evaluated, similarities and differences between barbershops and beauty salons will be important to evaluate.

Despite these limitations, important insights informing both future research and practice were revealed. Clearly, reaching large numbers of individuals in these settings, particularly AAs, is possible. Thus, there is great potential for addressing health disparities via salon/ shop-based interventions. Community-based approaches emerged as a promising way to collaborate with shop owners, stylists/barbers, and their customers to address health issues of greatest concern. The level and type of barber/stylist involvement needs further investigation, and may depend on the health topic, the size/location of the shop, or key customer characteristics. Developing activities at multiple levels of the Social Ecological Framework, including the physical environment external to or within salons/shops and how to measure this reliably will improve future studies. The role of incentives, including the amount, type, and timing, in motivating barber/stylist behaviors is worthy of additional investigation.

Lastly, future research should focus on expanding both process and outcome evaluation efforts, exploring how to disseminate evidence-based interventions, and investigating ways to sustain these interventions. Hopefully, this review will encourage investigators to thoughtfully evaluate and report interventions underway in salons and barbershops, with an aim toward improving understanding of the promise and potential of salons/shops to promote health and reduce the burden of health disparities across diverse communities and populations at risk.

#### Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

#### References

- 1. USDHHS. HHS action plan to reduce racial and ethnic disparities: a nation free of disparities in health and health care. Washington DC; USDHHS; 2011.
- Paskett ED, Reeves KW, McLaughlin JM, et al. Recruitment of minority and underserved populations in the U.S.: the Centers for Population Health and Health Disparities experience. Contemp Clin Trials. 2008; 29(6):847–61. [PubMed: 18721901]
- Glasgow RE, Vogt TM, Boles SM. Evaluating the public health impact of health promotion interventions: the re-aim framework. Am J Public Health. 1999; 89(9):1322–7. [PubMed: 10474547]
- Linnan LA, Ferguson YO. Beauty salons a promising health promotion setting for reaching and promoting health among african american women. Health Educ Behav. 2007; 34(3):517–30. [PubMed: 17435111]
- Luque JS, Ross L, Gwede CK. Qualitative systematic review of barber-administered health education, promotion, screening and outreach programs in African-American communities. J Commun Health. 2014; 39(1):181–90.
- Centers for Disease Control and Prevention. CDCynergy social marketing edition (version 2). orau.gov/cdcynergy/soc2web/
- 7. Hart A Jr, Underwood SM, Smith WR, et al. Recruiting African-American barbershops for prostate cancer education. J Natl Med Assoc. 2008; 100(9):1012–20. [PubMed: 18807428]

- Holt CL, Wynn TA, Lewis I, et al. Development of a barbershop-based cancer communication intervention. Health Educ. 2009; 109(3):213–25.
- Linnan LA, Kim AE, Wasilewski Y, Lee AM, Yang J, Solomon F. Working with licensed cosmetologists to promote health: results from the north carolina beauty and health pilot study. Prev Med. 2001; 33(6):606–12. [PubMed: 11716657]
- Linnan LA, Reiter PL, Duffy C, Hales D, Ward DS, Viera AJ. Assessing and promoting physical activity in African American barbershops: results of the FITStop pilot study. Am J Mens Health. 2011; 5(1):38–46. [PubMed: 20413387]
- Hart A Jr, Smith WR, Tademy RH, McClish DK, McCreary M. Health decision-making preferences among African American men recruited from urban barbershops. J Natl Med Assn. 2009; 101(7):684–9.
- Sadler GR, Meyer MW, Ko CM, et al. Black cosmetologists promote diabetes awareness and screening among African American women. Diabetes Educ. 2004; 30(4):676–85. [PubMed: 15669783]
- Kreuter MW, Alcaraz KI, Pfeiffer D, Christopher K. Using dissemination research to identify optimal community settings for tailored breast cancer information kiosks. J Public Health Manag Pract. 2008; 14(2):160–9. [PubMed: 18287923]
- Kreuter MW, Black WJ, Friend L, et al. Use of computer kiosks for breast cancer education in five community settings. Health Educ Behav. 2006; 33(5):625–42. [PubMed: 16923835]
- Li J, Linnan L, Rose J, et al. Promoting men's health within barbershops: barber/owner survey results and implications for intervention planning. Prev Med. 2011; 53(3):207–8. [PubMed: 21683732]
- 16. Hart A Jr, Bowen DJ. The feasibility of partnering with African-American barbershops to provide prostate cancer education. Ethn Disease. 2004; 14(2):269–73.
- Brown N, Naman P, Homel P, Fraser-White M, Clare R, Browne R. Assessment of preventive health knowledge and behaviors of African-American and Afro-Caribbean women in urban settings. J Natl Med Assoc. 2006; 98(10):1644–51. [PubMed: 17052056]
- Turrisi R, Gunn H, Hultgren B, Warner N, Mallett KA. The style project: feasibility of collaborating with salons for prevention and early detection of skin cancer. Arch Dermatol. 2012; 148(10):1206–7. [PubMed: 23069967]
- Baker JL, Brawner B, Cederbaum JA, et al. Barbershops as venues to assess and intervene in HIV/STI risk among young, heterosexual African American men. Am J Mens Health. 2012; 6(5): 368–82. [PubMed: 22398991]
- Gesler WM, Arcury TA, Skelly AH, Nash S, Soward A, Dougherty M. Identifying diabetes knowledge network nodes as sites for a diabetes prevention program. Health Place. 2006; 12(4): 449–64. [PubMed: 16002320]
- Lieberman A, Harris D. Acknowledging adult bias: a focus-group approach to utilizing beauty salons as health-education portals for inner-city adolescent girls. Health Promot Pract. 2007; 8(2): 205–13. [PubMed: 16980570]
- 22. Kim K, Linnan L, Kulik N, Carlisle V, Enga Z, Bentley M. Linking beauty and health among African American women: using focus group results to build culturally and contextually appropriate interventions. J Soc Behav Health Sci. 2007; 1(1):41–59.
- 23. Sadler GR, Peterson M, Wasserman L, et al. Recruiting research participants at community education sites. J Cancer Educ. 2005; 20(4):235–9. [PubMed: 16497136]
- 24. Roosta N, Wong MK, Woodley DT. Utilizing hairdressers for early detection of head and neck melanoma: an untapped resource. J Am Acad Dermatol. 2012; 66(4):687–8. [PubMed: 22421114]
- Magnus M. Prostate cancer knowledge among multiethnic black men. J Natl Med Assn. 2004; 96(5):650–6.
- Sadler G, Ko C, Cohn J, White M, Weldon R-N, Wu P. Breast cancer knowledge, attitudes, and screening behaviors among African American women: the black cosmetologists promoting health program. BMC Public Health. 2007; 7(1):57. [PubMed: 17439662]
- Lewis YR, Shain L, Quinn SC, Turner K, Moore T. Building community trust: lessons from an STD/HIV peer educator program with african american barbers and beauticians. Health Promot Pract. 2002; 3(2):133–43.

- Solomon FM, Linnan LA, Wasilewski Y, Lee AM, Katz ML, Yang J. Observational study in ten beauty salons: results informing development of the North Carolina beauty and health project. Health Educ Behav. 2004; 31(6):790–807. [PubMed: 15539548]
- Anderson KA, Cimbal AM, Maile JJ. Hairstylists' relationships and helping behaviors with older adult clients. J Appl Gerontol. 2010; 29(3):371–80.
- Fraser M, Brown H, Homel P, et al. Barbers as lay health advocates--developing a prostate cancer curriculum. J Natl Med Assn. 2009; 101(7):690–7.
- Brawner BM, Baker JL, Stewart J, Davis ZM, Cederbaum J, Jemmott LS. "The black man's country club:" assessing the feasibility of an HIV risk-reduction program for young heterosexual African American men in barbershops. Fam Community Health. 2013; 36(2):109–18. [PubMed: 23455681]
- 32. Luque JS, Rivers BM, Kambon M, Brookins R, Green BL, Meade CD. Barbers against prostate cancer: a feasibility study for training barbers to deliver prostate cancer education in an urban African American community. J Cancer Educ. 2010; 25(1):96–100. [PubMed: 20146044]
- Hammond WP. Psychosocial correlates of medical mistrust among African American men. Am J Community Psychol. 2010; 45(1–2):87–106. [PubMed: 20077134]
- Hammond WP, Matthews D, Corbie-Smith G. Psychosocial factors associated with routine health examination scheduling and receipt among African American men. J Natl Med Assn. 2010; 102(4):276–89.
- Campbell R, Sefl T, Wasco SM, Ahrens CE. Doing community research without a community: creating safe space for rape survivors. Am J Community Psychol. 2004; 33(3–4):253–61. [PubMed: 15212183]
- Egan V, McCorkindale C. Narcissism, vanity, personality and mating effort. Pers Individ Dif. 2007; 43(8):2105–15.
- Tingen MS, Weinrich SP, Heydt DD, Boyd MD, Weinrich MC. Perceived benefits: a predictor of participation in prostate cancer screening. Cancer Nursing. 1998; 21(5):349–57. [PubMed: 9775485]
- Jones RA, Sleeves R, Williams I. Strategies for recruiting African American men into prostate cancer screening studies. Nursing Research. 2009; 58(6):452–6. [PubMed: 19918156]
- Linnan L, Harrington C, Bangdiwala K, Evenson K. Comparing recruitment methods to enrolling organizations into a community-based intervention trial: results from the NC BEAUTY and Health Project. J Clin Trials. 2012; 2(119):1–5.10.4172/2167-0870.1000119
- 40. Hess PL, Reingold JS, Jones J, et al. Barbershops as hypertension detection, referral, and follow-up centers for black men. Hypertension. 2007; 49(5):1040. [PubMed: 17404187]
- 41. Holt CL, Wynn TA, Debnam K, et al. Cancer awareness in alternative settings: lessons learned and evaluation of the Barbershop Men's Health Project. J Health Dispar Res Pract. 2012; 4(2):8.
- 42. Howze EH, Broyden RR, Impara JC. Using informal caregivers to communicate with women about mammography. J Health Commun. 1992; 4(3):227–44.
- Resnicow K, Andrews AM, Beach DK, et al. Randomized trial using hair stylists as lay health advisors to increase donation in African Americans. Ethnicity Dis. 2010; 20(3):276.
- 44. Sadler GR, Ko CM, Wu P, Alisangco J, Castaneda SF, Kelly C. A cluster randomized controlled trial to increase breast cancer screening among African American women: the black cosmetologists promoting health program. J Natl Med Assn. 2011; 103(8):735–45.
- Victor RG, Ravenell JE, Freeman A, et al. Effectiveness of a barber-based intervention for improving hypertension control in black men: the Barber-1 Study: a cluster randomized trial. Arch Intern Med. 2011; 171(4):342–50. [PubMed: 20975012]
- Wilson TE, Fraser-White M, Feldman J, et al. Hair salon stylists as breast cancer prevention lay health advisors for African American and Afro-Caribbean women. J Health Care Poor Underserved. 2008; 19(1):216–26. [PubMed: 18263997]
- Sadler GR, Thomas AG, Gebrekristos B, Dhanjal SK, Mugo J. Black cosmetologists promoting health program: pilot study outcomes. J Cancer Educ. 2000; 15(1):33–7. [PubMed: 10730801]
- Johnson LT, Ralston PA, Jones E. Beauty salon health intervention increases fruit and vegetable consumption in African-American women. J Am Diet Assn. 2010; 110(6):941–5.

- Kleindorfer D, Miller R, Sailor-Smith S, Moomaw CJ, Khoury J, Frankel M. The challenges of community-based research: the beauty shop stroke education project. Stroke. 2008; 39(8):2331–5. [PubMed: 18566304]
- 50. Linnan L, Ferguson Y, Wasilewski Y, et al. Using community-based participatory research methods to reach women with health messages: results from the North Carolina BEAUTY and Health Pilot Project. Health Promotion Practice. 2005; 6(2):164–73. [PubMed: 15855286]
- 51. Browne MC. Program: "full service:" talking about fighting prostate cancer–in the barber shop! Health Educ Behav. 2007; 34(4):557–8.
- 52. Cowart LW, Brown B, Biro DJ. Educating African American men about prostate cancer: the Barbershop Program. Am J Health Stud. 2004; 19(4):205–13.
- 53. Morris D. Health and beauty: training beauty college students as maternal/child health educators. Health Educ Behav. 2008; 35(1):5–7.
- Madigan ME, Smith-Wheelock L, Krein SL. Peer reviewed: healthy hair starts with a healthy body: hair stylists as lay health advisors to prevent chronic kidney disease. Prev Chron Dis. 2007; 4(3):A64.
- Luque JS, Rivers B, Gwede C, Kambon M, Green BL, Meade C. Barbershop communications on prostate cancer screening using barber health advisers. Am J Mens Health. 2011; 5(2):129–39. [PubMed: 20413392]
- 56. Browne MC. Program: take a health professional to the people: a community outreach strategy for mobilizing African American barber shops and beauty salons as health promotion sites. Health Educ Behav. 2006; 33(4):428–9.
- 57. Magnus M. Barbershop nutrition education. J Nutr Educ Behav. 2004; 36(1):45–6. [PubMed: 14756983]
- Releford BJ, Frencher SK Jr, Yancey AK, Norris K. Cardiovascular disease control through barbershops: design of a nationwide outreach program. J Natl Med Assn. 2010; 102(4):336–45.
- 59. Linnan LA, Emmons KM, Abrams DB. Beauty and the beast: results of the Rhode Island Smokefree Shop Initiative. Am J Public Health. 2002; 92(1):27–8. [PubMed: 11772752]

#### Table 1

Descriptive statistics of formative research study features in beauty salons and barbershops

Formative research study features	n	%
Total	27	100
Setting		
Barbershops	11	40.7
Beauty salons	11	40.7
Community sites including beauty salons	4	14.8
Both salons/shops	1	3.7
Study focus		
Cancer	14	51.9
Diabetes	2	7.4
Stylist interest in interventions	1	3.7
STD/HIV	3	11.1
Physical activity	1	3.7
General health/health decision making	5	18.5
Mental health of older adults	1	3.7
Target population		
African American	19	70.4
African American and white	2	7.4
Low income	1	3.7
Not specified	5	18.5
Target gender		
Male	10	37
Female	9	33.3
Both	3	11.1
Not specified	5	18.5
Target age group, years		
18–24	2	7.4
18	4	14.8
Teens	1	3.7
40	4	14.8
60	1	3.7
Not specified	15	55.6
Location		
Urban	20	74.1
Rural	3	11.1
Both	2	7.4
Not specified	2	7.4

STD, sexually transmitted disease

#### Table 2

Descriptive statistics of intervention studies in beauty salons and barbershops

Intervention Study Features	n	%
Total	21	100
Setting		
Beauty salons	9	42.9
Barbershops	9	42.9
Both	3	14.3
Study design		
Non-experimental	10	47.6
Quasi-experimental	4	19.0
RCT	7	33.3
Study health topic		
Breast cancer	4	19.0
Prostate cancer	5	23.8
General cancer prevention	1	4.8
Hypertension	3	14.3
Diabetes, hypertension, or kidney and cardiovascular disease	2	9.5
Nutrition and physical activity	1	4.8
Smoking	1	4.8
Maternal and child health	1	4.8
General health information and screenings (e.g., blood pressure or wellness exams)	1	4.8
Organ donation	1	4.8
Stroke	1	4.8
Program delivery		
High stylist/barber involvement	15	71.4
Low stylist/barber involvement	6	28.0
Program objective		
Education	7	33.3
Education and Screening	4	19.0
Behavior change	7	33.3
Behavior change and screening	3	14.3
Target population		
African American, Afro-Caribbean	19	90.5
Stylists or owners	1	4.8
Not specified	1	4.8
Target gender		
Male	9	42.9
Female	8	38.1
Both	3	14.3
Not specified	1	5
Target age group, years		

Intervention Study Features	n	%
18	3	15
35	2	10
40	2	10
Not specified	13	65
Outcomes presented		
Yes	14	70
No	5	25
Process evaluation only	1	5
Used principles of CBPR		
Yes	7	35
Not specified	13	65
Incentives		
Stylist	3	15
Customer	2	10
Both	5	25
Not specified	10	50

CBPR, community-based participatory research

## Table 3

#### Emerging themes from salon and barbershop research

Theme	References
Barbers and stylists want to share health information with customers	7,9,6,21,27,30,32,47,52
Barbers and stylists already talk about health-related topics with customers	7,9,18,21,24,28,31
Customers are interested in receiving health information from their stylists or barbers or in salons or barbershops	8,10,16,21,30,52
Male customers are willing to obtain education, screening tests, physical measurements, and fitness assessments in the barbershop	10,19,40,51,56–58
Lack of health insurance or financial cost is a barrier to care	7,8,30,42,52