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A Smoking Cessation Project For African American Women: Implications For Relational Research

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A Smoking Cessation Project for African American Women: Implications for Relational Research

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Smoking cessation among African Americans is a primary health objective for the nation. African American women are more likely than their counterparts to have a high dependency upon nicotine. Studies with African American women report lower quit rates than those for whites. A culturally sensitive pilot project was designed for African American women to investigate smoking, perception of family environment (FES-R, Life Events Scale, family survey), feasibility of family-focused followup sessions, and an exercise program. Baseline cigarettes were negatively correlated with the FES-R subscales for cohesion, active-recreational orientation, and moral/religious emphasis; they were positively correlated with negativity in an important relationship. Predictors of ending cigarettes were scores for life events internal to the family and the FES-R subscale for independence. Interview and survey data identified potential sources of social support and perceived relational injustices. Future studies will explore expressed emotion, relational ethics, and interventions that improve relationships.

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For the last four decades, smoking has been named as a primary health risk in the United States. Smoking-related disease

and death take a dramatic toll on personal, family, and societal resources. Despite public health efforts and increased awareness of the health risks of smoking, prevalence of smoking-related mortality rates (e.g., lung cancer and cerebrovascular disease) for African Americans remain higher than those for whites and prevalence of cessation has been lower among African Americans than for whites (U.S. Department of Health and Human Services, 1998). This difference has been attributed to the stressful environments in which urban African Americans live and the aggressive marketing of tobacco products in African American communities (Landrine & Klonoff, 2000; Romano, Bloom, & Syme, 1991). As a result, the reduction of smoking prevalence among African Americans remains one of the primary health objectives for the nation.

The consequences of smoking among African American women are particularly relevant. Cerebrovascular disease is twice as high among African American women as among white women. There are also dangers posed to babies of women who become pregnant and continue to smoke throughout their pregnancy and after the infant is born (U.S. Department of Health and Human Services, 1990). However, research suggests that quitting may be a difficult task, especially for those women living in an urban community (Lacey, Manfredi, Balch, et al., 1993). African American women are more likely than their white counterparts to have a high dependency upon nicotine (Royce, Hymowitz, Corbett, et al., 1993; Wagenknecht, Cutter, Haley, et al., 1990). They may also have significant cognitive and behavioral barriers to cessation (Shervington, 1994). Therefore, this project focused on African American women who want to quit smoking, paying particular attention to the relevance of family dynamics and the feasibility of adaptations that might improve outcomes.

BACKGROUND

For the general population, traditional interventions in smoking cessation have achieved a wide range of quit rates (Schwartz, 1991). Group intervention models (i.e., American Lung Association [ALA]; Freedom from Smoking Program) have achieved quit rates ranging from 14% (Windsor, Cutter, Morris, et al., 1985) to 18% (Davis, Faust, & Ordentlich 1984). Use of nicotine patches in combination with the ALA program has reported quit rates of 40% (Cooper & Clayton, 1994). Some patients have reported that physician involvement was a major factor in their quitting success (Cumming, Hansen, Richard, et al., 1988; Kottke, Brekke, Solberg, & Hughes, 1989; U.S. Department of Health and Human Services, 1982). Meta-analyses indicate that interventions by physicians have an estimated cessation rate of 12% compared to 14% for interventions by psychosocial providers and 25% for interventions involving multiple providers (U.S. Department of Health and Human Services, 1996). There is also emerging evidence that the use of some anti-depressants may increase cessation rates (Hughes, Stead, & Lancaster, 2002).

Hall (1999) suggests the need for additional research on interventions for smokers not ready to quit and for special populations that need specific adaptations. Studies on the efficacy of smoking cessation programs for African American populations report quit rates at six months ranging from 12-16% (Faden & Gielen, 1993; Jones, Manfredi, Mermelstein, et al., 1994). A meta-analysis of programs for African Americans indicates that church-based programs have greater potential than clinic or community-based programs (Pederson, Ahluwalia, Harris, & McGrady, 2000). This may indicate the importance of existing social networks.

One study suggests that for African Americans living in urban areas, emotional

support in social networks is associated with decreased smoking for women, but not for men (Romano et al., 1991). Men in that sample who reported higher levels of emotional support tended to smoke more. In another study, the lack of social support for women was perceived as a barrier to smoking cessation (Lacey et al., 1993). Focus groups of African American women in Chicago public housing were formed in order to identify barriers associated with smoking cessation in this population. The women were enthusiastic about creating groups among themselves for the purpose of smoking cessation and made the following suggestions for such groups: they should be multipurpose (e.g., recreational, learning new skills related to job or household); they should not have a professional leader; organizers should be ex-smokers; and, most importantly, the group should provide a mechanism for members to give and receive emotional and social assistance (Lacey et al., 1993).

Kottke et al. (1989) recommend that family and friends be incorporated into future studies. In studies that included family or partner variables, data suggest that family members have a strong influence upon the initiation, maintenance, and cessation of smoking. Partner support has been identified as an important determinant of smoking cessation among women. A smoker's perception of partner support has been shown to be a significant variable in quitting (Mermelstein, Lichtenstein, & McIntyre, 1983). Naturally occurring partner support has also been cited as a significant predictor of early maintenance of abstinence for women who have recently completed a smoking cessation program and who are either married or living with a partner (Coppotelli & Orleans, 1985). In one study, a measure of support, labeled *partner facilitation*, was particularly significant as a predictor of continuous abstinence. Partner facilitation was defined as behaviors such as

encouraging self-reward, minimizing stress by avoiding personal conflict, and taking over some of the quitter's usual responsibilities, helping with cravings, and empathizing with and/or tolerating moodiness associated with nicotine withdrawal. The partner's former status as a smoker was also predictive of abstinence. Women whose partners either quit smoking first or who successfully quit concurrently had greater success in abstinence than those whose partner continued to smoke or never smoked.

Research has also shown that involving family members in a patient's medical treatment results in stronger compliance to medical regime. Significant effects from this protocol have been demonstrated with medication adherence (Doherty, Schrott, Metcalf, & Iasiello-Vailas, 1983); change in high risk behaviors in cardiac patients (Hoebel, 1976); adherence to treatment regime in dialysis patients (Steidl, Finkelstein, Wexler, et al., 1980); control of hypertension (Earp, Ory, & Strogatz, 1982); and successful treatment of obesity (Barbarin & Tirado, 1984). Family intervention has been shown to be of significant value in reducing an individual's addiction to substances (Piercy & Frankel, 1989) and superior to individual or group treatment in the rate of recidivism (Piercy & Frankel, 1989; Stanton & Todd, 1982).

Despite research on the importance of partner or social support, evidence suggests that (a) it may be difficult to change the behavior of a spouse or significant other through training within a short-term clinic or workplace smoking cessation program; (b) support, as defined by these programs, may be irrelevant to smoking cessation; and (c) some social training has been inadequate (Lichtenstein, Glasgow, & Abrams, 1986). Interventions targeting partner support have failed to significantly increase support from the identified parties. Instead, they have shown that existing spousal support and the absence of spousal criticism are

crucial factors in cessation, but interventions to date have not produced significant increases in measured support.

Campbell and Patterson (1995) suggest that these studies have not addressed the nature of the relationship before trying to improve levels of support. These relationship variables include satisfaction and communication. In their extensive review of family interventions in healthcare, they find that most studies are case reports or uncontrolled trials of family intervention. While social support, especially from family, has been shown to influence morbidity and mortality with many chronic conditions, it is not known how support within and external to the family are related or how family process influences health.

Coyne (1990) suggests that the key variable may be an absence of family conflict rather than the presence or increase of support. In one of the few studies that showed changes in partner behavior, Gruder, Mermelstein, Kirkendol, et al. (1993) report that abstinence during a self-help program was highest when a social support intervention was used. This support was most effective when "buddies" were trained on how to specifically help the smoker and the smokers were trained how to use their "buddy" rather than attending nonspecific discussion sessions. Although there was no increased level of positive interaction between smokers and their buddies in a support group compared to discussion group, there was improvement in the ratio of positive to negative interactions between the smoker and the buddy. In this case, it may be difficult to increase positive support, but it may be easier to decrease negative interactions through training of support partners. Other research supports this notion by showing a correlation of the ratio of positive/negative behavior to abstinence (Cohen & Lichtenstein, 1990) and the correlation of negative behaviors to abstinence (Glasgow,

Klesges, & O'Neill, 1986). These data are consistent with Coyne's (1990) suggestion.

In reducing negative behaviors, many family interventions have targeted the level of expressed emotion (EE) in families. This variable involves criticism and emotional overinvolvement present in a relationship. EE has been shown to predict the relapse rate and the clinical course of several mental and physical disorders, including schizophrenia (Brown, Birley, & Wing, 1972), depression (Leff & Vaughn, 1981), obesity (Fischmann-Havstad & Marston, 1984), and inflammatory bowel disease (Vaughn, 1989). Treatments designed to change family EE status have indicated that lowering EE status resulted in a significantly lower relapse rate (Hogarty, Anderson, Reiss, et al., 1986; Leff, Kuipers, Berkowitz, et al., 1982).

For many African Americans, families are seen as a primary buffer between racism; societal stress; and the need for growth, support, and self-actualization (Hardy, 1993). Thus, they are often considered a protective factor in the equation of positive and negative influences. High cohesion, strong emphasis on academics, work achievement, and spirituality are qualities listed as the strengths of African American families (Hill, 1972). Tight kinship networks have been effective mechanisms for providing extra emotional and economic support in the face of adversity (Boyd-Franklin, 1989; Brisbane & Wombel, 1992; Hill, 1972). A strong religious orientation has been found to be important in well-functioning African American families (Lewis & Looney, 1983).

In spite of the strengths found in African American families, Klonoff and Landrine (1999) report that in nearly 70% of black smokers, coming from a highly traditional black family was a strong predictor of smoking. Given that this study was a replication with nearly identical results to the prior study, they suggest that smoking prevention and cessation might be culturally tailored by addressing smoking as a family

issue. In addition, their research examines racial discrimination and smoking prevalence (Landrine & Klonoff, 2000). Reporting on 450 subjects, they found a strong positive relationship between smoking and the frequency and intensity of reported discrimination.

In addition, some black, single-parent families may have experienced a breakdown of support even from the extended kinship network (Boyd-Franklin, 1989; Lacey et al., 1993; Lindblad-Goldberg, Dukes, & Lasley, 1988). This may explain why Reeb, Graham, Kitson, et al. (1986) found it important to account for the perceived family of the woman rather than using traditional measures of household or family composition. When attributes of the perceived family were incorporated as factors in health, these variables were stronger predictors of psychosocial health outcomes than attributes of household composition.

Thus, the diversity among African Americans today suggests a need to explore multiple dimensions that may come to bear on the change process. Because cessation interventions tailored to African Americans have yielded lower results than in the general population, the starting point of this project was a culturally-sensitive program for African American women that could explore the needs of this group. Objectives of this pilot study were (1) to compare quit rates with those of other ALA programs, (2) to explore the relationship between smoking and perception of family, (3) to explore the feasibility of followup sessions with significant others and (4) to explore the feasibility of an exercise program.

METHODS

Subjects

The smoking cessation project was open to all African American women. Subjects were recruited through a press release in local newspapers, announcements at local churches, and announcements at local public health department facilities. Twenty-nine women were recruited during orientation sessions. Of these, 23 attended the first ALA class. Housing arrangements of the 23 included: 10 lived alone, 3 lived with spouses, 4 lived with spouses and children, 2 lived with friends, and 4 lived with members of other generations (either parent or child) without a spouse or friend. Of the 10 women who lived alone, 9 listed people outside the home they considered to be family.

There were no restrictions on eligibility to participate in the smoking cessation class; however, certification by the woman's primary care provider was obtained prior to the exercise component to ensure that she had no medical problems that would prevent her from moderate exercise. If they were not pregnant, women could use nicotine replacement therapy (patches and/ or gum) in conjunction with the smoking cessation program. They were advised to get a prescription from their physician. No women in the study were pregnant.

Program Components

1. A two-session orientation to the goals of the project and completion of informed consent and research instruments (family survey, Life Events Scale, Family Environment Scale (FES-R).

2. An eight-session American Lung Association (ALA) "Freedom from Smoking" class adapted as needed to African American women. Topics included the smoking habit, physiology of smoking, exercise, stress management, developing social support, and finding new rewards.

3. Individualized followup with family/ support group using family therapists to provide continued stress management, give support for maintenance of nonsmoking status, or encourage nonsmoking status if the woman was not smoke-free by the end

of the class. Individualized followup was intended to proceed for one year on a voluntary basis after completion of the smoking cessation class. Visits with a family therapist were offered on a monthly basis unless requested more often.

4.　Individualized progressive exercise program after completion of the class to minimize weight gain from smoking cessation. Women could schedule three visits with an exercise physiologist/trainer to develop an appropriate exercise program. The voluntary program was encouraged for one year after completion of the smoking class. It was limited to walking and flexibility exercises, dependent upon the needs of the women.

Data Collection and Analysis

Data on smoking cessation rates were collected through self-reports of number of cigarettes smoked and carbon monoxide testing. Women were asked two questions: "Are you currently smoking?" and "How many cigarettes per day are you smoking?" Exhaled carbon monoxide values were sometimes a reinforcement to women as they reduced their smoking habit if they were able to see a corresponding reduction in carbon monoxide levels in their lungs. However, because of inconsistent readings throughout the project, CO values were never statistically analyzed and investigators began exploring mechanical difficulties and the impact of taking these readings in too many different environments with too many investigators.

Responses on the FES-R were scored according to 10 scales grouped into three dimensions. The Relationship dimensions consisted of the cohesion, expressiveness, and conflict scales. The Personal Growth dimensions consisted of the independence, achievement orientation, intellectual-cultural orientation, active-recreational orientation, and moral/religious emphasis scales. The System Maintenance dimension

consisted of organization and control scales (Moos & Moos, 1986).

Responses on the Life Events Scale were scored according to whether or not an event happened to the subject within the last year and how disturbing it was for her. The five scales were: (1) events internal to the family; (2) family, school, and work; (3) family relatives and close friends; (4) family and health; and (5) family household finance and the law (Holmes & Rahe, 1967).

The family survey provided additional data on perceptions of family members:

1.　Who is the most supportive of your quitting smoking?

2.　Who is the least supportive of your quitting smoking?

3.　If there was a program to help family members support you in quitting smoking, who might be willing to attend?

4.　Who in the family has the most confidence in you?

5.　Who in the family sees you as you see yourself?

6.　Is there anyone in your family who seems to know what is best or right for you and tends to take over when you start something?　Who?

7.　Is there anyone in your family who makes you feel guilty or reminds you of what you should have done?　Who?

To explore the quality of family relationships, these questions were divided into those that had positive or negative implications. If the same family member was named in questions one, four, or five, a value of 1-3 was used as an indicator of positive intensity in a relationship. If the same person was named in questions two, six, or seven, a value of 1-3 was used as an indicator of negative intensity in a relationship.

Voluntary followup sessions included family members who were smokers as well as nonsmokers. The definition of family was extended to include friends and relatives identified by the subject as having a significant place in her social network.

Location of the sessions varied from the family therapist's office, university offices, the participant's home, etc., depending upon what was most convenient for the women and the level of family involvement.

The voluntary exercise program consisted of initial sessions that were held at the Exercise Physiology Department at the University of Louisville. After initial assessment, women were able to use the treadmill or walk on their own. In this component, staff was not involved in home visits or outreach activities.

Dependent variables were number of cigarettes smoked at the beginning of the class (beginning cigarettes) and number of cigarettes smoked at the end of class (ending cigarettes). Independent variables were perception of family measured by the FES-R and family survey, and perception of life events measured by the Life Events Scale.

A nonparametric sign test was used to compare ending cigarettes with beginning cigarettes. Using a modified intent-to-treat format, all women who began the first class after orientation were included in the analysis (U.S. Department of Health and Human Services, 1996). For subjects that dropped out, ending cigarettes was assumed to be the same as beginning cigarettes. To explore relationships between smoking and perception of family, a Spearman correlation coefficient was calculated between beginning cigarettes and scores from the FES-R, Life Events Scales, and family survey. Since similar studies have used multivariate designs, a stepwise multiple regression analysis was performed to examine the extent to which scores of the FES-R, Life Events Scale, and family survey were related to ending cigarettes.

RESULTS

Objective One
Sixteen of 23 (70%) women enrolling in the ALA class completed all classes. Seven of 23 (30%) women reported they had stopped smoking by the last session. Two (8.6%) women were smoke-free at 10.5 months and 1(4.3%) was smoke-free at one year. The mean (SD) number of cigarettes smoked by enrolling women was 26.1 (10.5) and 18.2 (15.8) by women in the last session. The amount of cigarette reduction was significant at the .001 level.

Followup interviews revealed that some participants considered smoking to be one of their few pleasures in life and that they deserved to be able to smoke their cigarettes. Others mentioned concerns about weight gain. Interviews also focused upon the part of the ALA program that emphasizes development of a new reward system as part of one's plan to become smoke-free. A majority of women in the followup reported that they were unable to develop a new system of rewards to replace smoking. Many expressed a sense of burden in their lives that became the perceived barrier to a new reward system. A number reported no support from household members or isolation during times when smoking urges were stronger.

Objective Two
Beginning cigarettes were negatively correlated with the FES-R subscales of cohesion ($r=-.598$, $n=23$, $p<.01$), active-recreational orientation ($r=-.462$, $p<.05$) and moral/religious emphasis ($r=-.422$, $p<.05$). They were positively correlated with the family survey score for negative intensity in a relationship ($r=.423$, $p<.05$). With respect to ending cigarettes, after controlling for beginning cigarettes, life events internal to the family was a negative predictor and the FES-R independence subscale was a positive predictor ($R^t=.781$, $R^2=.611$, $F=9.41$, $p<.001$). Remaining FES-R subscales, life events subscales, and family survey variables were not significant predictors.

In followup interviews, participants described relationships in which they gave

a great deal but what they received in return was less than what they deserved. They also described family stresses over which they felt powerless. In these experiences, they reported a sense of isolation that in turn provided encouragement for their smoking habit.

Objective Three

In family survey data collected during the orientation session, fifteen of 23 women reported someone who might be willing to attend a program for family members. During the followup phase, three family therapists conducted sessions with 11 women. The number of sessions for each woman ranged from 1-13 over six months. Of the 11 followup cases, three involved family members. Most often, women declined invitations by the family therapists to include significant others. They said they did not think the family member would agree to come or that they preferred to meet alone. They also expressed a need for group support longer than 6 weeks after their quit date. Some questioned whether the individualized followup was helpful.

Objective Four

Of the 6 women who participated in exercise activities, 4 attended three exercise sessions and 2 attended two exercise sessions.

DISCUSSION

Program comparisons

In this pilot, there was interest in whether a culturally specific group would improve quit rates at six months or one year, compared to other programs. Quit rates were higher than some programs at program completion. These results encouraged our interest in a culturally-specific group process. With respect to maintenance rates, voluntary followup activities did not appear to have an impact.

Since the average number of cessation attempts before success may be between three and four (Prochaska & Goldstein, 1991), there is some evidence that when a person decides to quit smoking, she may not have initial resources to match the complexity of the task. One of these resources may be proper mental preparation with realistic expectations about what is needed to move beyond the initial stages of change to successful maintenance. Because the first year of cessation is statistically the most difficult period in which to maintain nonsmoking status, it seems important to address the process and timing of relapse, accounting for as many biopsychosocial variables as possible.

Prochaska and Goldstein (1991) found that smokers who successfully quit on their own were using significantly more behavioral and interpersonal processes than those who were unsuccessful. These interpersonal processes may relate to ways in which significant others may be an important component to eventual success. To this end, suggestions from these participants and those in other studies indicate the importance of devising group and partner activities that include psychoeducation and social functions. The combination of these elements could lead to a sense of community that supports smoke-free lifestyles.

Smoking and perception of family

One useful finding showed smoking to be negatively related to perceptions of family characteristics such as cohesion, having an orientation toward active recreation, and having an emphasis upon spirituality. Women in this sample who perceived their families to be more cohesive, more active, and more spiritual were smoking fewer cigarettes at the beginning of the project than those in their cohort who perceived their family as having less of these characteristics. A family's

emphasis upon physical activity and recreation might be a protective factor in smoking prevalence, especially if a sense of cohesion is enhanced in the process. In combination, these elements could be useful concepts for faith-based organizations to consider as a basis for health promotion in African American communities.

In addition, there was a positive relationship between smoking and the presence of negativity in an important relationship. Since other cessation studies have failed to assess the quality of relationships before trying to improve them, these data may provide some help in this area (Campbell & Patterson, 1995). Related to other research in healthcare, these data encourage further explorations of the relationship between EE and smoking.

Multiple regression indicated that the Life Events subscale of stresses internal to the family was a negative predictor of ending cigarettes. This suggests that the more stress a woman reported within her family, the less likely she was to smoke. These results seem counterintuitive; however, since baseline data were used in the regression analysis with ending cigarettes, it is possible that the interventions of group support and counseling impacted a woman's perception of stress and the data do not reflect those possible changes. The use of pre and post data might have accounted more accurately for these effects. From anecdotal reports, it is also possible that those stressors were in some way motivators for change since the content of the questions refers to major transitions such as births, deaths, and relocations. A final thought relates to the intent to treat design that uses baseline data for those who dropped out. If they dropped out because of family stresses and were actually smoking more as a result, the lack of data showing this effect could have skewed the results.

The FES-R subscale of independence was a significant positive predictor for ending cigarettes. These scores suggest that those

women who were smoking less at the end of the program perceived their family as fostering less independence among members. This subscale uses phrases like "independence," "do things on our own," "privacy," and "rely on themselves." From a gender perspective, high scores might indicate isolation, particularly if female respondents place a high value upon interdependence. This result has some relevance to the findings of Romano et al. (1991) who highlighted the importance of emotional support in social networks for African American women when smoking decreased. However, given the small sample size, all statistical findings in this study are exploratory.

Theoretically, the sense of burden mentioned in followup interviews may relate to a sense of familial injustice as discussed by Boszormenyi-Nagy and Krasner (1986) in their contextual model of family therapy. This concept suggests that present relationships are influenced by perceptions of past injustices and present imbalances. As one person gives to another, the giver develops a sense of entitlement if she does not receive back as much as she gives. Filling this void becomes justification for certain behavior in relationships. In this model, substance abuse is linked to a sense of destructive entitlement, in which one who feels unable to establish fair relationships turns to chemical stimuli as compensation for the unfairness. This approach is critical of behaviorally based treatment that does not account for motivational processes in relationships (Boszormenyi-Nagy & Krasner, 1986).

If relational justice is used as a conceptual frame for smoking cessation interventions, the goal might be to help smokers realize positive shifts in unfair relationships during cessation attempts. In this study, negative relational intensity was positively correlated with the number of beginning cigarettes. Thus, a relationship with high negativity might be an avenue

for focused interventions. Ratios of positive/ negative behavior may relate to perceived imbalances.

Since previous studies have ignored baseline relational quality before designing interventions, it seems important to identify what relationships are most influential and assess the nature of these relationships to inform interventions. Following the contextual model, the Relational Ethics Scale (RES), developed by Hargrave, Jennings, and Anderson (1991) provides scores of perceived fairness in vertical and horizontal relationships. This scale could provide important data if smokers and network members are being asked to accommodate in ways that are perceived as unfair. Negotiating plans that balance issues of relational justice may increase the efficacy of an intervention.

Followup sessions with significant others

With respect to participation by others, an interesting contrast evolved from the beginning to the end of the project. Initially, fifteen of 23 women during orientation reported having family who would be willing to participate if a program existed for them. Following the eight-week program, follow-up interviews revealed many family stressors reported by the women and their reluctance to involve significant others. A careful analysis of this chronological progression suggests that the beginning of the program manifests a more positive appraisal of family involvement. It seems as the women began personal disclosures and discussed family stresses, their appraisal of family involvement became negative. Thus, if a program intends to target social support, involvement of significant others seems likely to be more successful if initiated at the beginning of the program, before participants become established in a format that encourages an

individualistic culture. Gruder et al. (1993) obtained impressive results in this way. Since they found a positive relationship between improved social support and success rates, it seems important to motivate partner involvement at the outset so that a positive relational culture can be developed. Stanton and Todd (1982) obtained positive results with heroin addicts using such an approach. When they compared paid vs. unpaid families, the results were similar, showing that effective interpersonal engagement of family members can motivate others to become involved in the intervention.

In addressing the nature of the smoker-partner relationship, it is possible that attention to partner needs might turn the tide from other studies, enabling partners to increase supportive behaviors. From a cybernetic perspective, Rohrbaugh, Shoham, Trost, et al. (2001) have conceptualized smoker-partner interactions that maintain smoking behavior. Based upon this interactional view, they are evaluating an intervention program designed to address these problematic interactional sequences. As the most recent attempt to address the specific, immediate interactions related to smoking, their work links relational assessment with the actual design of an intervention program for high-risk smokers. They note that there has been little support for relational interventions from other smoking cessation proponents due to the lack of success in raising levels of support. However, in their study, they make a compelling and optimistic case for couple interventions based upon the pressing needs of high-risk smokers.

Their argument has relevance for this sample, if African American women are considered a high-risk population in their own right. While only 7 women in this sample were married, the others may also benefit from a cybernetic focus upon important relationships in their social

network that may be influential in the smoking process. It seems worthy of further study to reach out to any relevant network members for inclusion in the type of interventions that Rohrbaugh et al. (2001) are developing for married, high-risk smokers.

Feasibility of an exercise program

Participation in the exercise program suggested the need for other ways of incorporating exercise into the women's routines. Those women who were motivated by health concerns were not as able to participate in this component. Given the low rates of voluntary participation and the expressed need for longer group support, it may be more feasible to incorporate physical activity into a multifamily group that integrates it with psychoeducation and the initial physiological assessment. This may be a way to involve family members in a variety of activities that are aimed at lifestyle changes.

SUMMARY

The health status of African American women deserves greater attention. Smoking cessation is an important component of such work, given higher rates of cancer, heart disease, and lower birth weights occurring in this population. Relational injustices, interpersonal burden, and lack of social support may be psychosocial obstacles that impede smoking cessation. Important narratives from the women highlighted these challenges. Similarities between these data and those in other studies suggest that this population may benefit from a continued exploration of stressful life events, interpersonal process, and smoking. Future studies should address these factors as they relate to the attempted lifestyle changes of African American women.

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