Title: "Take an opportunity whenever you get it": Information Sharing among African-American Women with Hypertension

Authors: Lenette M. Jones, PhD, RN *corresponding author

Postdoctoral Researcher, FPB School of Nursing, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, Ohio 44106, phone 216-368-2637, fax 216-368-3542, lmj55@case.edu

Kathy D. Wright, PhD, RN

KL2 Scholar, FPB School of Nursing, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, Ohio 44106, phone 216-368-1928, fax 216-368-3542, kdw39@case.edu

McKenzie K. Wallace, BSN, BA, RN

Doctoral Student, FPB School of Nursing, Case Western Reserve University, 10900 Euclid Avenue, Cleveland, Ohio 44106, phone 216-368-1928, fax 216-368-3542, mkw47@case.edu

Tiffany Veinot, MLS, PhD

Associate Professor, School of Information and School of Public Health, University of Michigan, 3443 North Quad, 105 S. State Street, Ann Arbor, MI 48109-1285, voice/fax 734-615-8281, tveinot@umich.edu

Abstract

Nearly half of African-American women have hypertension, which increases their risk for cardiovascular disease and stroke. A plethora of consumer health information products and services exist to inform people with hypertension and to promote self-management among them. Promotion of information sharing by African-American women represents a promising, culturally-applicable strategy for consumer health information services focused on hypertension self-management. Yet, how African-American women share hypertension information with others is unclear. The purpose of this qualitative, descriptive study was to examine practices of information sharing in African-American women with hypertension. Thirteen women (mean age = 73, SD = 9.87) participated in one of two focus groups held at an urban community health center. Thematic analysis revealed that the women shared information about how they self-managed their blood pressure 1) with female family members and friends, 2) about ways in which they adapted self-management strategies to work for them, 3) mostly in group settings, and 4) because they wanted to prevent others from suffering and reinforce their own knowledge about hypertension self-management. New findings emerged regarding assessing "readiness" for information. Study findings will be used to inform the design of an information sharing intervention to support self-management of hypertension in African-American women.

Key words: African-American women, information transfer, resource sharing

Although the prevalence of hypertension increases with age across all populations, rates in African-American women are among the highest (Mozaffarian et al., 2016). Hypertension, blood pressure greater than 140/90 mmHg, must be controlled to prevent kidney failure, cardiovascular disease, and death (Valderrama et al., 2012). Self-management of hypertension requires improved diet, increased exercise, and medication adherence (James et al., 2014). Many consumer health information products and services exist to inform and promote hypertension self-management among African-Americans.

Promotion of information sharing by African-American women represents a promising, culturally-applicable strategy for consumer health information services focused on hypertension self-management. Guided by studies examining the role information in health behavior, we define information sharing as giving hypertension information to other lay people ("peers") with or without the disease (Fisher & McKechnie, 2005; Greyson & Johnson, 2015; Meadowbrooke, Veinot, Loveluck, Hickok, & Bauermeister, 2014). This approach shows potential since older women discuss health information with others more often than men (Altizer, Grzywacz, Quandt, Bell, & Arcury, 2014). Information sharing is also associated with African-American women's use of information for hypertension-related decision-making (Jones, Veinot, Pressler, Coleman-Burns, & McCall, 2017). We are unaware of any studies using this approach to examine information-sharing practices in African-American women with hypertension; this novel study fills this gap.

Methods

Theoretical sampling was used to recruit from a private practice with numerous African-American women with hypertension. Women with experience sharing hypertension information were invited to participate in focus groups. The participants' blood pressures were controlled (<140/90 mmHg). See Table 1 for additional characteristics.

Table 1

Sample Characteristics (N = 13)

	Mean (SD)	Range
Age (years)	73.08(9.87)	57-90
Systolic BP (mmHg)	130.54(14.79)	89-147
Diastolic BP (mmHg)	78.23(11.95)	76-86
Blood pressure medications (# pills)	1.31(0.63)	1-3
Time living with hypertension (years)	15.23(5.07)	5-20

BP=blood pressure

The focus groups were audiotaped, transcribed, and verified. Investigators developed descriptive codes using open coding (Saldaña, 2015). Codes were then categorized and aggregated into emerging themes (Auerbach & Silverstein, 2003). To ensure reliability and credibility, consensus on the themes was achieved (Boyatzis, 1998). Transcripts were re-coded into the agreed-upon themes, which were compared and collapsed for clarity/conciseness (Saldaña, 2015). Validity of the results were member-checked with five participants (Lincoln & Guba, 1985); all concurred with the findings. This study had IRB approval.

Results

With whom information is shared

Participants argued the value of peer-based information sharing: *"We speak the same language…we hear information better from one another because you know how to talk to me…"* Most shared with female family members (sisters/daughters), some also shared with their grandchildren. Friends were also a focus of sharing. Peers they shared with were not all hypertensive; sometimes they shared to help prevent others from developing hypertension.

What information is shared

The women shared diet, exercise, and medication adherence self-management strategies. As Table 2 shows, they discussed adapting recommendations to match one's preferences and physical capabilities. Additionally, they shared information on supplements and stress management.

Where to share information

The women preferred sharing in a group of peers: *"That's where* [group] *you have a chance to really share information about how to manage high blood pressure and other things as we age."* However, they noted one-on-one sharing was better for peers who are *"private": "…those are the ones that we are really challenged to reach."* When discussing online sharing, participants insisted that sharing must be done face-to-face. They were not frequent Internet users and were not interested in using it to communicate with family and friends (Table 2). One participant explained why texting was a poor strategy for reaching her: *"…you could send it to me…am I gonna read it? I probably won't… 'cause I'm not attached to a cell phone..."*

Table 2

The Who, What, Where, When, and Why of Information Sharing

Theme	Description	Participant text
Who	Peers	"Me and my…daughter, we talk…she's trying to change some of her habits…"
What	Strategies:	
	Diet	"…we just go through our neighborhood promoting…good health and passing out recipe cards."
	Exercise	"It's an exercise book…and it shows you how to do exercises in a chair, so that's what I do…."
	Medication	"I can give people pill containers, if they need them."
	Stress reduction	"Get the bible…Start praying…Things will get better.
Where	One-on-one	"…some people you can [only] reach one-on-one."
	Group	"In a group setting, we exchange more and then we find out things…what she does and what they do…"
When	Best time	"…you can't make people...Until they have the will or the desire to do to turn their life around."
Why	Benefits:	
	Recipient	"If I can give a word of encouragement…I want to try to help others."
	Sharer	"…because if I'm a say '…you should eat like this.'…I've gotta practice what I preach…"
		"…it helps me in the sense…"caring"…I love to help others."

When to share information

Participants believed information should be shared only when the recipient wanted help (Table 2). One participant described her inability to share with daughter: *"I talk to her...she hangs up on me and she won't talk to me."* Another described times she could not share with her husband: *"...he either don't feel good that day or he's feeling sorry for himself, but he won't talk about it."* It was important to retreat when a message was poorly received. To share when someone is ready, the women said to *"take an opportunity whenever you get it."* These opportunities arose at different times, including when one was approached with questions: *"My neighbor asked me...'How did you…?'"*. Others proactively shared after a recipient's change in health status, such as a hypertension diagnosis or hospital stay.

Why sharing information is important

Women shared information due to perceived benefits for the both the recipient and the sharer (Table 2). Women wanted to help prevent high blood pressure in others or help those struggling to manage it. Helping others made them feel good about themselves. Moreover, participants felt that sharing helped to reinforce information for their own use.

Discussion and Conclusion

This study uniquely showed that participants used information sharing to reinforce information for themselves, which may explain the significant correlation information sharing and use for self-management decisions (Jones, Veinot, Pressler, et al., 2017). Women in this study shared information about self-management of hypertension, the form of peer-based health information called "practical strategies." (Veinot, 2010). These practical strategies involved "translations" of biomedical information into spiritual and family life (Kaziunas, Ackerman, & Veinot, 2013). This topical focus differs from prior research that emphasizes online searching among lay health information intermediaries (Abrahamson, Fisher, Turner, Durrance, & Turner, 2008; Cutrona et al., 2016). As shown previously, participants stated that sharing information with other made them feel good about themselves (Veinot, 2010; Wolf & Veinot, 2015)

Participants felt that the group setting is best format for sharing information, and that one could only share information with peers that are "ready." This resonates with the concept of "network-mediated information opportunity," (Veinot, 2009) but extends the concept to include a new finding – an assessment of a person's "readiness" for information. Participants assessed others' readiness according to their mood and backed off if they were poorly received. They were available to answer questions when people were "ready." They also seized opportunities to share after recent negative medical events. Building on current practices, an information sharing intervention could teach readiness criteria and related assessment skills.

Similar to others, findings showed that information sharing primarily occurs in close relationships that are already established, such as with family (Abrahamson et al., 2008; Cutrona et al., 2016). This suggests that interventions focus on these interactions

rather than e-communities for the unacquainted. None of these participants suggested sharing information online, which may be due mean age of the sample (over 70 years). This contrasts with previous findings that those who share health information with others are more likely to search for, and create online health information than those who do not (Cutrona et al., 2016). Additionally, women who seek health information online are more likely to have better controlled blood pressures (Jones, Veinot, & Pressler, 2017). Thus, it is important to further assess older patients' interest in online activities.

We explored information sharing among African-American women with hypertension. Study findings highlight women's motivation to share blood pressure information, and its perceived benefits for both the information recipient and sharer. Findings also emphasize the practical focus of the shared information, and identify approaches and assessment practices that can profit sharing. Accordingly, it is a promising intervention strategy to promote information sharing activities by African-American women with hypertension, while building on the approaches that work in their everyday lives.

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