Older African Americans' perspectives on mHealth approaches for HIV management

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Cell Phone Ownership, 2014

Cell owners in 2014

Among adults, the % who have a cell phone

		Have a cell phone
	All adults	**90%**
	Sex	
a	Men	93[b]
b	Women	88
	Race/ethnicity*	
a	White	90
b	African-American	90
c	Hispanic	92
	Age group	
a	18-29	98[cd]
b	30-49	97[cd]
c	50-64	88[d]
d	65+	74
	Education level	
a	High school grad or less	87
b	Some college	93[a]
c	College+	93[a]
	Household income	
a	Less than $30,000/yr	84
b	$30,000-$49,999	90
c	$50,000-$74,999	99[ab]
d	$75,000+	98[ab]
	Community type	
a	Urban	88
b	Suburban	92
c	Rural	88

Source, Pew Research Center Internet Project Survey, January 9-12, 2014. N=1,006 adults.
Note: Percentages marked with a superscript letter (e.g., [a]) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g., age).
* The results for race/ethnicity are based off a combined sample from two weekly omnibus surveys, January 9-12 and January 23-26, 2014. The combined total n for these surveys was 2,008; n=1,421 for whites, n=197 for African-Americans, and n=236 for Hispanics.

PEW RESEARCH CENTER

Pew Research Internet Project, 2014

Smartphone Ownership, 2014

Smartphone owners in 2014

Among adults, the % who have a smartphone

		Have a smartphone phone
	All adults	**58%**
	Sex	
a	Men	61
b	Women	57
	Race/ethnicity*	
a	White	53
b	African-American	59
c	Hispanic	61[a]
	Age group	
a	18-29	83[bcd]
b	30-49	74[cd]
c	50-64	49[d]
d	65+	19
	Education level	
a	High school grad or less	44
b	Some college	67[a]
c	College+	71[a]
	Household income	
a	Less than $30,000/yr	47
b	$30,000-$49,999	53
c	$50,000-$74,999	61[a]
d	$75,000+	81[abc]
	Community type	
a	Urban	64[c]
b	Suburban	60[c]
c	Rural	43

Source, Pew Research Center Internet Project Survey, January 9-12, 2014. N=1,006 adults.
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Pew Research Internet Project, 2014

Background

- Use of mHealth technologies can be effective in improving the health and well-being of older adults while reducing cost of care
- Health care areas relevant to mHealth:
  - Chronic disease management
  - Medication adherence
  - Safety monitoring
  - Access to health information
  - Wellness
- Example of mHealth technologies:
  - Personal health records
  - Safety and location tracking systems
  - Chronic disease remote patient monitors with mobile alert systems
  - Web-based social networking
  - Nutrition, activity, and QOL web-based monitoring systems
  - Medication reminders and safety alerts via text, email, or smartphone application

Center for Technology & Aging, 2011
http://www.techandaging.org/mhealth_program_page.html

Original Paper

Evaluating User Perceptions of Mobile Medication Management Applications With Older Adults: A Usability Study

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Parker *et al. BMC Geriatrics* 2013, **13**:43
http://www.biomedcentral.com/1471-2318/13/43

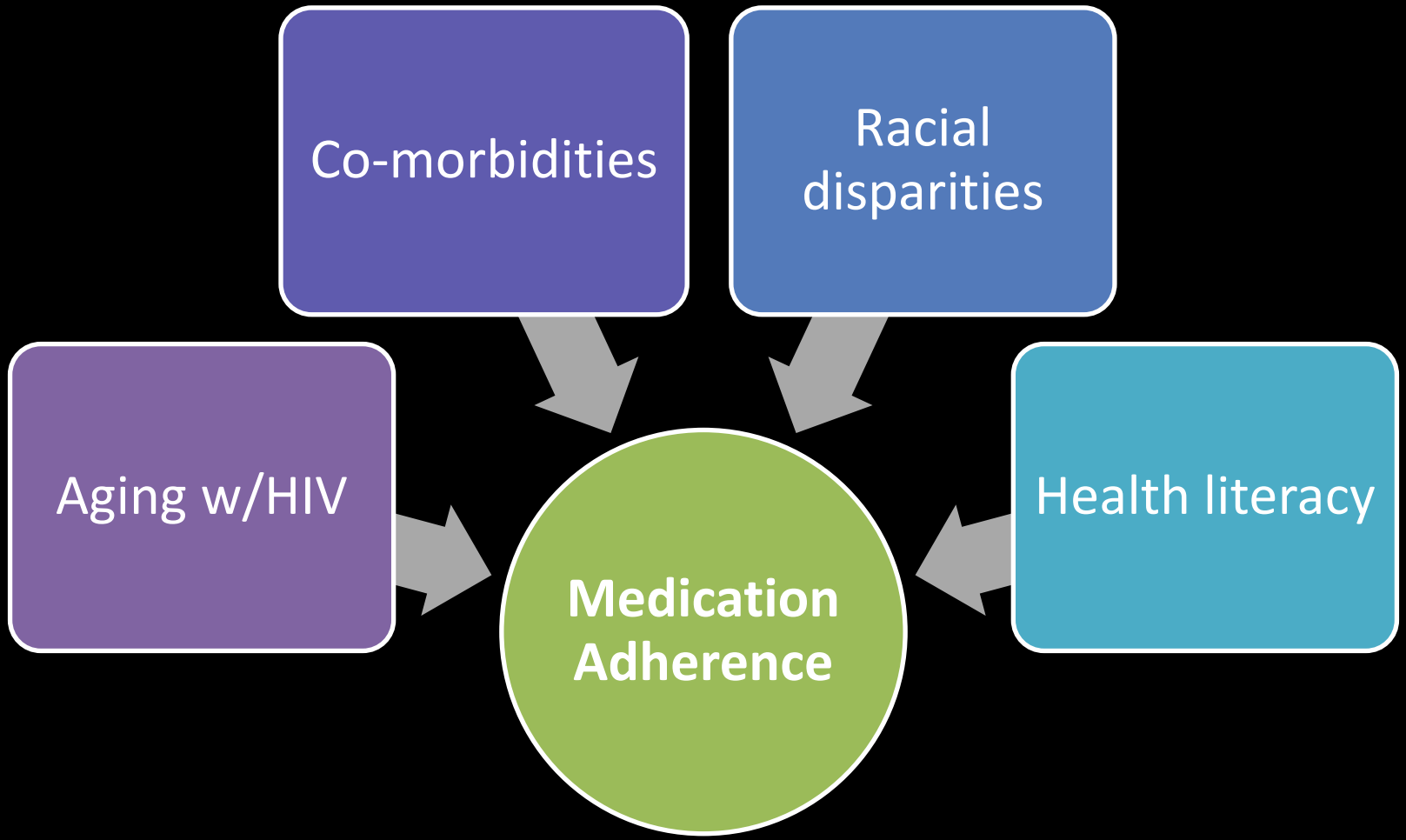
BMC Geriatrics

RESEARCH ARTICLE Open Access

Older adults are mobile too! Identifying the barriers and facilitators to older adults' use of mHealth for pain management

Samantha J Parker[1], Sonal Jessel[1], Joshua E Richardson[2] and M Cary Reid[1*]

Significance
Adults with HIV



mHealth interventions that *engage* patients and consider the *cultural needs* of a *diverse aging* population are critical for *effective management* of HIV!

PCOR Institutional Award 1K12HS021694-01 (AHRQ)

Patient Preference and Adherence

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ORIGINAL RESEARCH

"Keep it simple": older African Americans' preferences for a health literacy intervention in HIV management

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Patient Preference and Adherence
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Number of times this article has been viewed

Carrie Ann Gakumo[1]
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David E Vance[1,2]
Efe Sahinoglu[3]
Jim L Raper[1,3,4]

Purpose: Health literacy is lower in minorities and older adults, and has been associated with nonadherence to medications, treatment, and care in people living with human immunodeficiency virus (HIV). Likewise, African Americans with HIV are more likely to be nonadherent to their HIV medications, less likely to keep their clinic appointments related to HIV treatment and care, and more likely to die during hospitalizations than their ethnic counterparts. The present study explored the preferences of older African Americans with HIV for a health literacy intervention

Specific Aims

- CHAT Study (**C**ommunication on **H**ealth **A**ttentiveness and **T**eaching
- Specific aims:
  1. To assess what older AA w/HIV know about HIV and its management as it pertains to their clinic visit.
  2. To assess patient preferences for an intervention to promote HIV management.

Methods

- Qualitative, descriptive design
- Patient-centered, semi-structured interview guide
- Health literacy measured using the Revised Rapid Estimate of Adult Literacy in Medicine (REALM-R; Bass et al., 2003)
- Participants recruited from the 1917 Clinic (*N* = 20)
  - Inclusion criteria:
    - HIV infected for at least 1 full year
    - African American aged 45 or above
    - Currently on HIV medication regimen
  - Those with cognitive impairments excluded
- Data coded using NVivo® Qualitative software
- Research interviewers both living with HIV

Results

Table 1. Sample Demographics (*N* = 20)

Variable	Number (%)	*M* (*SD*)	Range
Gender			
Men	10 (50%)		
Women	10 (50%)		
Annual Income			
< $10,000	7 (35%)		
$10,000 - $19,999	8 (40%)		
$20,000 and over	5 (25%)		
Employment Status			
Unemployed/Disabled/Ret.	15 (75%)		
Employed full or part time	5 (25%)		
Education Completed			
< 12 years	3 (15%)		
12 years/GED	5 (25%)		
College/Vocational	12 (60%)		
Age (years)		54.9 (6.3)	45.0 – 66.0
Health Literacy (REALM-R)		5.1 (3.1)	0.0 – 8.0
Years Living with HIV		12.1 (7.5)	1.0 – 25.0
Number of Current HIV Medications		2.1 (1.0)	1.0 – 4.0

Gakumo et al. (2015) *Patient Prefer Adherence, 9,* 217-223.

Results

Key Themes:

1. Keep health information simple
2. Use a team-based approach (health care team and peers)
3. Tailor teaching/education to individual needs
4. Account for low experience, but high interest in technology

Gakumo et al. (2015) *Patient Prefer Adherence, 9,* 217-223.

Theme: Keep Health Information Simple

"I mean…I'm interested in 'em. If there's not a whole bunch of long, long drawn out stuff that lose, you know, that loses you. It's uh, just keep it simple and, and, and learnable, you know, that you can learn something from 'em. Even the personal stories of the people that has the HIV; just keep 'em simple without them going into too much medical stuff that you're not gonna understand anyway, you know? Just, uh, "doctor's talk" and stuff like that, that's not meaning anything. Like you know, you're interested in the research and all of that but when it goes into, like, medical educatin', I, I,…it loses me there." - 55 y/o f.

Theme: Use a team-based approach

INT: "Do you think it would be a good idea to have health experts to be in this type of program?"

PT: "Uhm…somewhat. Yes, I do. But, to me, it would be better if you have people in it that are living with the disease that have been through the, uhm, been through the medications, that have had the symptoms, that knows the steps of this disease. They can better inform you that, as far as, versus a health professional that does not have the disease; they know how to treat the disease, but living with it is, is, you know, a different story." – 45 y/o m.

Theme: Tailor education strategies to individual needs

- Areas identified:
  - Gender-specific needs
  - Mental health needs
  - Amount of information presented
  - Newly diagnosed vs. “old-timers”

Theme: Account for low experience, but high interest in technology

INT: “Tell me about your experiences with texting.”

PT: “I'm the worse texter in the world.”

INT: “Okay.”

PT: “And I tell my daughter – she lives in Virginia and she'll text me sometimes and then she'll text right back, “Did you not get my text?" and I'll say, “Look, let me tell you something, I am a slow texter, so if you text me something and want an answer, you might get it tomorrow!" So, don't text me for an answer. If you need an answer, you call me and I can give it to you quicker.” – 66 y/o f.

Theme: Account for low experience, but high interest in technology (cont'd)

INT: "Do you think texting could be used as a resource to learn more about HIV?"

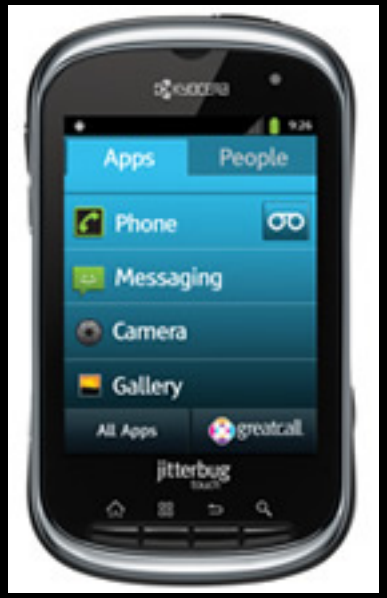
PT: "Yes it can be; because these people are phone-crazy! And you don't know how they get these expensive phones—I can't afford all of 'em – it would be good in two ways: you could help them understand their HIV 'cause when people by theirselves [sic], there's less chance of being embarrassed and then, if they read, they can think about what they don't understand and what they need to ask. Another way it would be good, for, like, appointments. You can text them as a reminder, "You have an appointment at the 1917 Clinic at 4 o'clock," say, April the 10th. And, they're going to answer that phone. They're going to retrieve them texts!" – 57 y/o m.

Additional Findings r/t Technology

- Most need extensive training on how to use
- Many like to receive, but not send texts
- Prefer computers or laptops for prolonged internet searches
- In favor of use for social support

Older Adult-Friendly Mobile Phones

Pantech Flex



Jitterbug Touch

Samsung Galaxy Note II

Conclusions

- Stronger evidence for the development and testing of mHealth interventions in vulnerable populations to improve health and wellness is needed
- The engagement of older adults in mHealth intervention development can help to alleviate generation bias and lack of trust for applications

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