

Familiarity, Navigation,
and Comprehension:
Key Dimensions of
Health Literacy in Pap
Test Use Among Korean
American Women

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Background

- Health literacy- “The degree to which individuals have the capacity to obtain, process, and understand basic health information and services to make appropriate health decisions” (U.S. DHHS, 2000)
- Types of health literacy
 - Print (reading and understanding text)
 - Oral (speaking and listening effectively)
 - Numeracy (ability to use quantitative information)
- Different dimensions of health literacy may have impact on specific health behaviors and outcomes

Korean Americans in the U.S.

Significant health literacy challenges in some Asian communities in the U.S. esp. those with limited English proficiency

Korean Americans (KAs), one of the largest Asian populations in U.S. (Shin, 2003; US Census Bureau, 2013)

- 92.5% foreign born
- 70% monolingual (do not speak English well)

KA women report lower cervical cancer screening rates than those of other ethnic groups (ACS, 2018; Ponce et al. 2003; Moskowitz et al., 2003)

Consequences of limited health literacy

Limited health literacy
leads to



- Misconceptions
- Lack of appropriate understanding of information provided
- Limited knowledge, attitude, and self-efficacy negatively affecting preventive care use

(Sentell et al., 2015; Scott et al., 2002)

Purpose

- To identify dimensions of health literacy that are most relevant to cervical cancer screening in KA women

Methods

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- Design – Cross-sectional study
- Source of data – Baseline data from a community-based health literacy-focused intervention trial to promote breast and cervical cancer screening among 560 KA women (Han et al., 2017)
- Sample – KA women 21- 65 years of age (N=560) who had not received age-appropriate mammograms and/or Pap tests

Assessment of Health Literacy-Cancer (AHL-C)

- Cancer screening-specific health literacy tool developed based on Baker's conceptualization of health literacy
- Dimensions included:
 - Familiarity (12 items)
 - Comprehension (12 items)
 - Reading/word recognition (12 items)
 - Health navigational literacy (12 items)
 - Numeracy (4 items)
- Acceptable to excellent internal consistency reliability, ranging from 0.70 to 0.92 and evidence of construct validity and concurrent validity

Characteristics	n (%)	Mean±SD
Age (range=21-65), years		46.0 ± 8.6
<40	137 (24.5)	
40-49	205 (36.6)	
50-59	185 (33.0)	
60+	33 (5.9)	
Married/Partnered	480 (85.7)	
Years of education (range=4-24)		14.5 ± 2.7
Some college+	363 (64.8)	
Years in the US (range=0.1-62.3)		16.5 ± 9.7
English proficiency (range=1-4)		2.7 ± 0.9
Not at all/Poor/Fair	429 (76.6)	
Fluent	131 (23.4)	
Having health insurance	212 (37.9)	
Receiving physician recommendation	88 (15.7)	
Health literacy (range=0-52)		19.9 ± 12.5
Familiarity (range=0-12)		2.1 ± 2.9
Comprehension (range=0-12)		3.2 ± 3.7
Word recognition (range=0-12)		5.4 ± 3.8
Health navigational literacy (range=0-12)		7.1 ± 4.0
Numeracy (range=0-4)		2.2 ± 1.4
Lifetime Pap test use	273 (48.8)	
Triennial Pap test use	142 (25.4)	

Sample characteristics (N=560)

- Mostly middle-aged and married
- Well educated
- Limited access to care
- Limited English proficiency
- Limited health literacy

Main findings

	Lifetime Pap test use	Triennial Pap test use
Characteristics	Odds ratio (95% CI)	Odds ratio (95% CI)
Age	1.048 (1.020, 1.078)**	--
Years of education	--	--
English proficiency	--	--
Years in the US	0.979 (0.957, 1.003)	--
Health insurance (Ref. No)	--	1.654 (1.051, 2.610)*
Physician's recommendation (Ref. No)	15.434 (6.445, 36.960)***	12.131 (7.023, 20.956)***
Familiarity	1.204 (1.106, 1.312)***	--
Comprehension	--	1.070 (1.009, 1.135)*
Word recognition	--	--
Health navigational literacy	1.093 (1.034, 1.156)**	--
Numeracy	--	--
Pseudo R ² (%)	18.24	19.79

*p<0.05; **p<0.01; ***p<0.001

Discussion

- Unclear why different health literacy dimensions were associated with the same behavior but in different time frames (lifetime vs. triennial).

- Comprehension might have elicited an immediate benefit on woman's uptake of a recent test even when covariates were controlled.

- One's assessment of own ability to use relevant medical terminologies proficiently (familiarity) and being able to apply them throughout the cancer screening trajectory (navigational literacy) might have been important but insufficient precursors to sustaining cancer screening behaviors.

Implications

- Prior research supports the importance of numeracy in certain chronic care contexts. Neither reading test (word recognition) nor numeracy were significantly associated with Pap test screening in the study sample, however.
- Further research using multi-dimensional health literacy measures such as AHL-C is warranted to better elucidate how different health literacy dimensions are related to a variety of health behaviors and outcomes.
- Future intervention should address salient dimensions of healthy literacy in promoting Pap test screening among recent immigrant women such as KAs.

Study Limitations

- Pap test screening self-reported at baseline
- Cross-sectional study design
- Data pulled from a sample enrolled in a randomized trial designed to promote cancer screening

For further questions and comments:

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