

Relationships Between Gender and Online Health Information Seeking: A Meta-analysis of Large US Surveys



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BACKGROUND & QUESTIONS

- Role of gender in health information seeking explored for potential impact of better crafting of messages and interventions.
- Meta-analytic methods may produce results more generalizable to wider populations than findings of singular studies.
- Current research indicates males seek health information less often than females, even online.
- Pew Internet found males had larger online presence than females over past decade.
- **Are males becoming more likely to seek health information by seeking it online?**
- **Do factors of age and relationship status moderate online health information seeking behaviors?**

METHODS

Survey or Study Inclusion Criteria

- Conducted between 2007 and spring 2013 in United States.
- $\geq 2,000$ respondents providing viable responses to questions on gender and online health information seeking.
- Well defined, accessible protocols. Tools tested for validity and reliability.
- Males and females represented in similar quantities.
- Sex \neq gender; however, in surveys explored, variables used interchangeably. Analyst uses "gender" to more accurately depict how individuals may identify.

How Surveys/Studies Identified

- Searched 12+ health, information science, and other relevant databases.
- Searched multiple data repositories including Data.gov, ICPSR, and Pew.

Identified 5 Surveys Meeting Inclusion Criteria

- National College Health Assessment (NCHA), American College Health Association, 2008
- Health Tracking Household Survey (HTHS), Center for Studying Health System Change, 2010
- National Health Interview Survey (NHIS), National Center for Health Statistics, 2011
- Health Information National Trends Survey (HINTS), National Cancer Institute, 2012
- Health Tracking Survey (Pew), Pew Internet and American Life, 2012

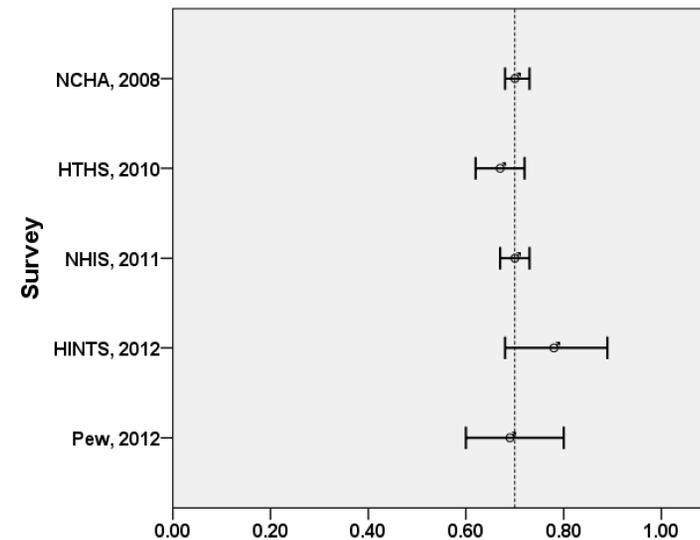
Analyses

- Odds ratio (OR) and relative risk (RR) used to measure relationships between online health information seeking and gender. Where possible, variables for personal information seeking used to control for caregiving bias.
- Chi-square analysis tested significance of relationships for online health information seeking, gender, age, and personal relationship status.

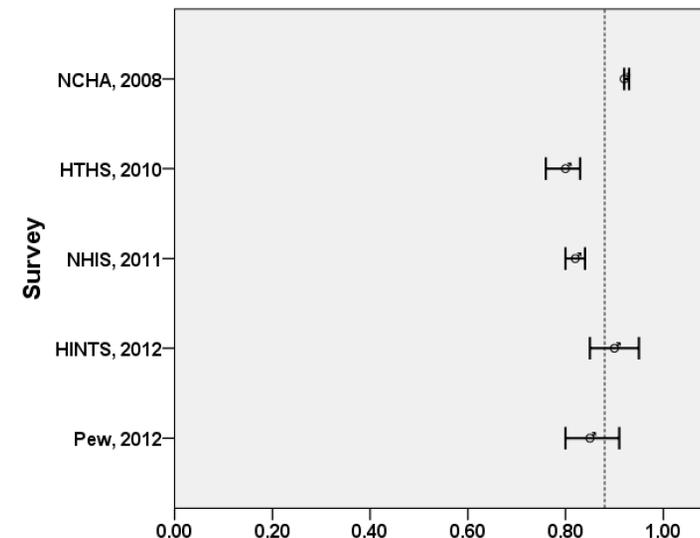
RESULTS

Survey, Year	N, Valid Responses for Gender & Seeking Online Health Info	Odds Ratio, Male/Female Seeking Online Health Info	Relative Risk, Male/Female Seeking Online Health Info
NCHA, 2008	77,382	0.7 (0.68-0.73)	0.92 (0.92-0.93)
HTHS, 2010	13,569	0.67 (0.62-0.72)	0.8 (0.76-0.83)
NHIS, 2011	32,683	0.7 (0.67-0.73)	0.82 (0.8-0.84)
HINTS, 2012	3,841	0.78 (0.68-0.89)	0.9 (0.85-0.95)
Pew, 2012	3,014	0.69 (0.6-0.8)	0.85 (0.8-0.91)

OR (95% CI) Online Health Information Seeking by Gender (Weighted Mean OR=0.7)



RR (95% CI) Online Health Information Seeking by Gender (Weighted Mean RR=0.88)



DISCUSSION

Overall Online Health Information Seeking and Gender

- Odds of males seeking online health information lower than those of females across studies (weighted mean OR=0.7).
- Males 88% as likely as females to seek online health information (weighted mean RR=0.88).
- Mean percentage across studies of males seeking online health information is 57%. For females, amount is 67%.
- Overall homogeneity of results. $I^2=1\%$ for OR and RR tabulations.

Patterns by Age

- Age not analyzed for NCHA as $>90\%$ of respondents <30 years old, limiting opportunity for meaningful analysis and likely skewing mean results across studies.
- **Statistical significance ($p \leq .05$) found in remaining individual surveys with younger respondents more likely to access health information online than older respondents.**
- Pattern applied to males and females; continues wider trend of more younger people online than older people.

Patterns by Relationship Status

- Marital status, grouping individuals identifying as married or living as married, examined with online health information seeking variable.
- NCHA not included. Low percentage of respondents identifying as married or living as married. Large percentage identified as dating; similar variables not available for comparison in other surveys.
- **Statistical significance ($p \leq .05$) found in remaining individual surveys with individuals not living as married less likely to seek health information online than counterparts living as married.**
- Additional analyses (OR, RR) indicated males living as married less likely to search for health information online than females living as married while males living as not married somewhat less likely to search than males living as married. Largest differences existed in 3 newest studies.

Limitations

- Research covers approximately 5 years in which internet adoption increased and ways of using internet (mobile computing, social media, etc.) changed.
- Transgender not offered as gender variable in examined data; analyst hopes future research includes this demographic.
- Analyst worked to control for biases, but some likely affect results.

Going Forward

Future research will examine how surveyed individuals evaluated and used information and explore communication strategies.

QUESTIONS?

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