The Relationship Between Health-Related Internet Use and Psychological Distress Among Older Adults

Katja Breceljnik MSW Student I California State University Fullerton I Advisor: Dr.Juye Ji

ABSTRACT

Technological literacy among older adults has been on the rise. Engaging in the health-related technology use has been directly linked to older adults' increased psychological wellbeing. Older adults who experienced physical difficulties and lower skill experienced decreased psychological wellbeing. The present study aimed to examine the relationship between Internet use for health-related reasons and older adults' psychological distress, measured by symptoms of anxiety and depression. The current study is a secondary analysis of the data from the Health Information National Trends Survey (HINTS) that surveyed 3,865 adults from February 2020 till June 2020 - the early Covid-19 pandemic. The current study was based on the data from a subsample of 1,628 older adults aged between 60 to 85. The results of the current study revealed a positive and statistically significant relationship between appraising health-related technology use as helpful and psychological distress. These results reveal that older adults who experience increased psychological distress can benefit from engaging in health-related technology use. Therefore, clinicians working with older adults should increase health-related technology training services for this population.

INTRODUCTION

Significance of the Study

This area of research is still at a nascent stage and thus it is important to further examine the role played by health-related use of technology in psychological distress of older adults.

Purpose of the Study

The purpose of the current study is to add to the body of knowledge in social work practice and research the relationship between Internet use for health-related reasons and older adults' psychological distress, measured by symptoms of anxiety and depression

Research Question

What is the relationship between health-related internet use and psychological distress among older adults?

Research Hypothesis

The study's hypothesis states that there will be a statistically significant relationship between health-related technology use and psychological distress among older adults.

LITERATURE REVIEW

Technology Use and Psychological Distress Among Older Adults

Depressed Mood

- Decreased → Engaging in online activities for social connection, seeking health-related information, or sending emails.
- Increased → Those who experience physical challenges in activities of daily living, and those who sought health information and governmental services during the Covid-19 pandemic.

Anxious Mood

- Increased → Engaging in new technology without sufficient personal mastery
- Typically less frequently statistically associated with the frequency of Internet use

Research Gap

Most studies examining older adults' mental health in relation to the Internet use focus on identifying socioeconomic barriers to accessing the Internet, or using the Internet for social connection. There is insufficient research related to older adults and their Internet use for health purposes related to their psychological distress as measured by symptoms of anxiety or depression.

METHODOLOGY

Research Design and Data Collection Procedure

The current study is a secondary analysis of the original study:

- Conducted from February 2020 till June 2020 by the Health Information National Trends Survey (HINTS)
- Cross-sectional design, utilizing mail surveys inquiring
- Participants: 3,865 adults ages 18 and older
- Focus: inquiring about knowledge, understanding, opinions, and attitudes of cancer prevention, diagnosis, treatment, genetic testing, clinical trials, and cancer survivorship.

Sample

The current study is based on the data from a subsample of 1,628 older adults (41.8% of the original sample) aged between 60 to 85, with 54.8% females and 45.2% males.

Measures

Independent Variables (*self-rated responses*)

- Helpfulness of technology use for health purposes
  (Three items, Yes or No responses)
- The frequency of internet use
  (Two items, Daily, Sometimes, Never responses)
- Using technology for medical purpose
  (Four items, Yes or No responses)

Dependent Variable (*self-rated responses*)

- Psychological distress measured by symptoms of :
  - Hopelessness
  - Having little interest in doing things
  - Anxiousness
  - Worry

  (4-Likert Scale Items: Nearly every day, More than half the days, Several days, Not at all).

Typical participant characteristics:

- Median age 69.68 (SD = 6.580)
- Female 54.8% (n = 938)
- Retired 65% (n = 1060)
- Non-Hispanic White 61.2% (n = 997)
- Married 61.2% (n = 997)
- Some college 31.3% (n = 535)
- Income < $20,000 among 48,4% (n = 788)
- Metropolitan area 85% (n = 1384)

RESULTS

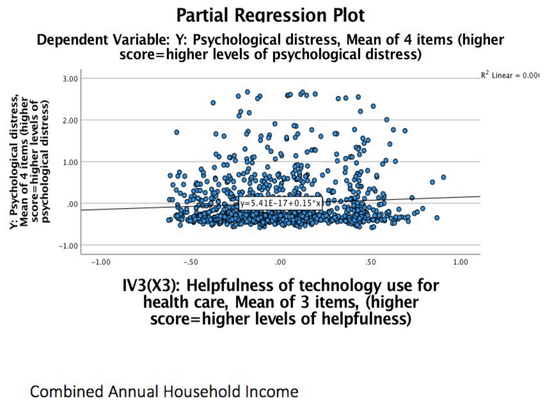
A multiple linear regression revealed:

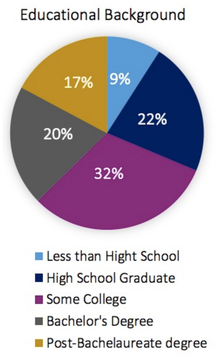
√ **Helpfulness of technology use for health purposes resulted in a statistically significant and positive relationship with psychological distress** (b = 0.147, $p < 0.05$).

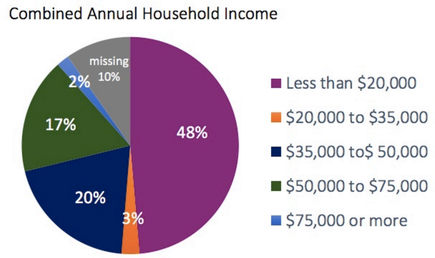
/ The participants' frequency of technology use for health care ($p = 0.563$) and use of technology devices for health care purposes ($p = 0.108$) were not statistically significantly related to psychological distress among the study participants

√ Regression analysis includes age, gender, and combined household income as covariates and resulted in statistically significant relationship with psychological distress.

Variable	*ANOVA*	R^2	*B*	*SE*	*Beta*	*t*	*Sig.*
Psychological Distress	$F(6, 1058) = 4,341$, $p<0.01$	0.02					
Constant			1.75	0.23	--	7.61	<0.001
Frequency of Internet Access			0.02	0.04	0.01	0.57	0.56
Use of technology devices for health care purpose			-0.10	0.06	-0.05	-1.61	0.10
Helpfulness of technology use for health care			0.14	0.05	0.08	2.48	0.01
Gender			-0.83	0.03	-0.06	-2.20	0.02
Age			-0.01	0.00	-0.06	-2.20	0.02
Combined annual household income			0.03	0.01	0.07	2.53	0.01







DISCUSSION

Strengths

- Large, nationally representative sample
- Timely research due to the increase on technology reliance during early Covid-19 pandemic

Limitations

- Limited representativeness as only 25% of the original study sample responded to the survey
- Limited research scope as the original study was not exclusively focused on technology use and mental health
- The original study's survey questions were designed prior the Covid-19 pandemic and did not include the pandemic-related questions

Future Direction

Future research should focus on how health-related technology use impacts older adults' mental health. Research should examine the bidirectional relationship of psychological distress and health related technology use to better understand the relationship. Future research should include precise clinical mental health questionnaire to obtain more reliable results. Additionally, research should evaluate health-related technology training services for older adults and include mental health variables for improved service and support.

Implications for Social Work

The current study's findings are relevant for clinicians and case managers working with older adults. Clinicians should provide health-related technology training services for older adults and explain the benefits. Health-related training should include telehealth and understanding how to access helpful information online, including connecting with doctors easily, obtain needed medication online, find health-related information, use technology applications to improve physical or mental health, and access services. Mental health agencies and hospitals should provide resources for training services to bridge technology gaps in this population.