



Exploring the Relationship Between Health Insurance Literacy and Health Equity in College Students: A Pilot Study

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ABSTRACT

This original research explores health insurance literacy among undergraduate college students at a Minority-Serving Institution (MSI) compared to a Predominantly White Institution (PWI) and examines the association of demographics on health insurance literacy levels. Findings will inform strategies to reduce health inequities in underserved college populations, highlighting key differences between students at MSIs and PWIs to advance public health leadership and policy development.

RESEARCH METHODS

This study is a combination of a descriptive and exploratory study design of quantitative research.

The research was conducted among undergraduate students at two institutions in the Southeastern United States. One institution was a Minority-Serving Institution, and the other was a Predominantly White Institution. The researcher utilized a web-based survey tool called Qualtrics and created a survey that comprised of 22 questions comprising demographic questions, perceptions of health equity, and health insurance knowledge items using the validated KFF tool.

Participants were recruited via emails, flyers, and departmental outreach. The study was declared exempt by the Institutional Review Board and received 276 responses from October 2024-December 2024.

DISCUSSION

Overall, health insurance literacy scores were low at both the MSI and PWI. The MSI had significantly lower HIL scores than students at the PWI. These scores were lower than previous published studies (James et al., 2020; Upadhyay et al., 2022), which highlights the need for health insurance education at universities.

Age, race, and academic standing were found to be significantly associated with HIL. Older students, White students, and upperclassmen had higher HIL levels than their counterparts. This could be due to previous navigation and experience with health insurance and more formal health insurance education.

INTRODUCTION/BACKGROUND

Many Americans lack understanding of health insurance, despite the expansion of the Affordable Care Act (Loewenstein et al., 2013). Prior to the implementation of the Affordable Care Act in 2010, the uninsured rate for Americans was at 16%, compared to 7.7% in late 2023 (U.S. Department of Health and Human Services, 2024). Many individuals in the United States have difficulty understanding health insurance, particularly health insurance terminology, as well as limited knowledge of health insurance (Nobles et al., 2019).

Health insurance literacy (HIL) is defined as “the degree to which individuals have the knowledge, ability, and confidence to find and evaluate information about health plans, select the best plan for their own financial and health circumstances, and use the plan once enrolled” (Consumers Union, 2012, p.ii). Research has shown health insurance literacy levels are lower among younger individuals (Norton et al., 2014). There are limited studies on health insurance literacy in college students, but these studies show that college students generally have low health insurance literacy levels (Nobles et al., 2019; James et al., 2020; Upadhyay et al., 2022).

The study was grounded in the Health Equity Framework. The Health Equity Framework is a science and justice-based framework that was created to promote health equity and was designed specifically for public health practitioners and researchers (Peterson et al., 2021).

Q1: Do health insurance literacy levels differ among undergraduate students attending an MSI vs. a PWI?

Q2: Are age, race, ethnicity, academic standing, and gender associated with health insurance literacy levels among undergraduate college students?

DATA ANALYSIS/RESULTS

Data was analyzed using Statistical Package for the Social Sciences (SPSS) version 29, and used a combination of bivariate and multiple regression analyses.

Students at the PWI had significantly higher HIL scores than students at the MSI. A Mann-Whitney U test revealed there was a significant difference between the two institutions (U=5611.00, p<0.001).

Institution	N	Mean HIL Score (SD)	Median	Minimum	Maximum
PWI	126	4.33 (2.38)	5.00	0.00	9.00
MSI	124	3.14 (2.33)	3.00	0.00	10.00

Age was analyzed separately using a Spearman’s Rho calculation (p<0.001). The correlation coefficient of 0.302 indicated a positive relationship between health insurance literacy and age. One-Way ANOVA and Multiple Linear Regression were used to explore other demographic variables and HIL levels. Age, race, and academic standing were found to be significantly associated with HIL.

Demographic	Category	Mean HIL Score (SD)	P-Value (ANOVA)	P-Value (Multiple Regression Model)
Gender	Male	3.40 (2.56)	Reference	Reference
	Female	3.86 (2.36)	0.163	0.204
	Non-Binary/Prefer not to say	5.5 (2.34)	0.040	0.013
Race	White	4.3 (2.47)	Reference	Reference
	Non-White	3.16 (2.28)	<.001	0.003
Ethnicity	Hispanic	3.88 (1.76)	0.496	0.945
	Non-Hispanic	3.75 (2.51)	0.459	0.842
	Prefer not to say	3.00 (2.52)	Reference	Reference
Academic Standing	Freshman	3.18 (2.40)	<.001	0.067
	Sophomore	2.46 (2.19)	<.001	0.005
	Junior	3.64 (2.28)	0.007	0.101
	Senior	4.63 (2.35)	Reference	Reference

CONCLUSIONS/FUTURE RESEARCH

Future research should be conducted to compare health insurance literacy levels between students at an MSI and a PWI to determine if findings are generalizable. Future studies should also explore additional demographic factors on health insurance literacy and college students.

The findings from this study emphasize the need for health insurance education at universities. The results can inform public health professionals and university officials with the knowledge to develop educational programming and new policies surrounding both health insurance literacy and health equity.

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