



Satisfying their Need: Graduate Students' Perceptions of the Adequacy of their Health Insurance

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Background

Health insurance sustained the interest of academic researchers long before it captured the interest of current policy-makers. Across the many facets of research focal points, the topics most frequently studied have been healthcare access, utilization and satisfaction. Not studied or evident in the research, however, is the graduate student population. Studies regularly link effective access to care to consumer satisfaction (Andersen, 2008; Ross et al., 1995), and factors such as gender, age, income, familiarity with health insurance, health need and health utilization have all been associated with satisfaction (Carlson et al., 2000). This study explores the graduate student age group's need for and perceptions of adequate health care coverage.

Research Question

What factors are associated with graduate students' satisfaction with their health insurance plans?

Study Framework

The commonly used Andersen Behavioral conceptual framework is utilized to identify the factors (predisposing, enabling, need and behavior) and variables within factors that help to explain service utilization and satisfaction (Phillips et al., 1998; Andersen, 1995). The extended model also includes contextual factors. The DV satisfaction with insurance plan was measured on an 11-point scale (0=worst plan possible, 10=best plan possible).



Methods

An online survey was developed using SNAP software. The survey included questions about health status, need, utilization, and insurance. A list of 2,000 randomly selected graduate students at the Ohio State University constituted the sample. Participation was solicited through an e-mail sent to students containing a link to the survey web page. A total of 253 students responded (response rate = 12.65%).

Results

Table 1. Respondent Characteristics (N=253)

Respondents (%)		Respondents (%)	
Gender		Relationship status	
Male	39.5	Single	68.0
Female	60.5	Married/Partnered	29.2
Age		Neither single nor married	2.8
Under 22	2.0	Year of study	
22-25	54.5	Year 1	36.3
26-29	29.6	Year 2	32.3
30 or above	13.8	Year 3 or above	31.4
Race/Ethnicity		Perceived Health Status	
Asian or Pacific Islander	13.0	Fair	3.2
African-American	2.0	Good	15.0
Hispanic or Latino/a	2.4	Very good	48.6
White	79.1	Excellent	33.2
Multi-racial	3.6		

Table 3. Hierarchical Regression: Factors Predicting Satisfaction

	B at entry (SE B)	β at entry	ΔR^2	Final B (SE B)	Final β
1. Contextual Factors					
Cost of premium	.03 (.06)	.03	.18***	.044 (.06)	.05
Time on plan	-.06 (.08)	-.05		-.04 (.08)	-.03
Doctor choice	-.96 (.14)	-.43***		-.73 (.17)	-.32***
2. Predisposing Factors					
Ethnicity			.03		
Asian or Pacific Islander	-.05 (.38)	-.01		-.08 (.39)	-.01
African-American	-.34 (.82)	-.03		-.19 (.83)	-.02
Hispanic or Latino/a	.24 (.74)	.02		.45 (.74)	.04
Multi	.62 (.55)	.07		.43 (.54)	.05
Age	.10 (.16)	.04		.13 (.16)	.05
Gender	-.51 (.23)	-.14*		-.39 (.24)	-.11
Marital Status					
Married	-.34 (.26)	-.09		-.27 (.27)	-.07
Neither single nor married	.41 (.82)	.03		.10 (.79)	.01
3. Enabling Factors					
Knowledge of Insurance Plan	.37 (.13)	.19**	.10**	.48 (.15)	.24**
Financial Support					
Paid Assistantship	.67 (.29)	.15*		.63 (.30)	.14*
Fellowship and/or Scholarship	.70 (.25)	.20**		.70 (.26)	.20**
Employment (non-Assistantship)	.42 (.24)	.12		.30 (.24)	.08
Loans	-.20 (.24)	-.06		-.29 (.25)	-.08
Parents/Guardians	.67 (.27)	.17*		.54 (.27)	.14*
Savings	-.10 (.24)	-.03		-.03 (.24)	-.01
4. Need Factors					
Perceived health need	.26 (.16)	.11	.02	.23 (.16)	.10
Evaluated health need	-.15 (.31)	-.03		.07 (.32)	.02
5. Health Behavior					
Visits to doctor or medical professional	-.02 (.03)	-.05		-.01 (.03)	-.03
Use of preventative services	-.25 (.17)	-.11		-.21 (.17)	-.09
Emergency Room use	.09 (.32)	.02		.02 (.33)	.00
6. Insurance Components					
Deductible (Y)	.06 (.26)	.02		.06 (.26)	.02
Deductible (N)	.33 (.33)	.08		.33 (.33)	.08
Pre-existing condition limitation (Y)	-.22 (.30)	-.05		-.22 (.30)	-.05
Pre-existing condition limitation (N)	.42 (.32)	.09		.42 (.32)	.09
Annual maximum benefit (Y)	-.31 (.26)	-.09		-.31 (.26)	-.09
Annual maximum benefit (N)	.17 (.50)	.03		.17 (.50)	.03
Annual out-of-pocket maximum expense (Y)	.13 (.29)	.03		.13 (.29)	.03
Annual out-of-pocket maximum expense (N)	-.42 (.44)	-.06		-.42 (.44)	-.06
Annual maximum Rx benefit (Y)	-.38 (.29)	-.10		-.38 (.29)	-.10
Annual maximum Rx benefit (N)	-.46 (.42)	-.08		-.46 (.42)	-.08

*p < .05; **p < .01; ***p < .001
Full Model: N=176, R² = .37

Chart 1. Students' Overall Satisfaction with Insurance Plan (N=253)

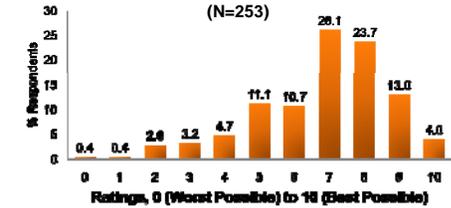


Table 2. Insurance Plan Ratings

Mean: 6.83
SD: 1.90
Range: 0 - 10

Findings

Students' contextual factors (choice of doctor) and enabling factors (financial support, knowledge of plan) had the greatest influence on their satisfaction.

Within contextual factors, the ability to choose one's doctor was a significant predictor of satisfaction ($\beta = -.32, p < .001$).

Within enabling factors, the best predictors were plan knowledge ($\beta = .24, p < .01$) and financial support through a fellowship or scholarship ($\beta = .20, p < .01$), a paid assistantship ($\beta = .14, p < .05$), and parents or guardians ($\beta = .14, p < .05$).

Predisposing, health, behavior and insurance component factors did not contribute to the model. Other findings show that students on the OSU Student Health Insurance (SHI) plan report less use of preventative services, go without care more frequently, and report lower satisfaction than other students.

Implications

Policies should change to decrease the out-of-pocket health care costs for graduate students or to increase financial resources available to graduate students.

Increased efforts should be made to engage graduate students in the review and comprehension of their insurance plan provisions.

Consideration should be given to expanding coverage options for preventative care on the OSU SHI plan.

References

- Andersen, R. M. (2008). National health surveys and the Behavioral Model of Health Services Use. *Medical Care*, 46(7), 647-653.
 Andersen, R. M. (1995). Revisiting the Behavioral Model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, 36, 1-10.
 Carlson, M. J., Blustein, J., Fiorentino, N., & Prestatani, F. (2000). Socioeconomic status and dissatisfaction among HMO enrollees. *Medical Care*, 38(5), 508-516.
 Phillips, K. A., Morrison, K. R., Andersen, R., & Aday, L. (1998). Understanding the context of healthcare utilization: Assessing environmental and provider-related variables in the Behavioral Model of Utilization. *Health Services Research*, 33(2), 571-596.
 Ross, C. K., Steward, C. A., & Sinacore, J. M. (1995). A comparative study of seven measures of patient satisfaction. *Medical Care*, 33(4), 392-406.

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