

## **The Impact of Health Insurance on College Students' Lives**

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Key Words: college students, health insurance, uninsured

### **Abstract**

Researchers have found evidence that college students who had inadequate health insurance tended to have difficulties focusing on their academics and work (Cook & Holahan, 2008; Arnold & Nicoteri, 2005; D'Heilly, Ehlinger, & Nichol, 2005; Molnar, 2002). The central research question in this study was, "What are college student attitudes regarding the impact of health insurance on their lives?" The authors predicted that uninsured college students would suffer higher stress levels and lower overall quality of life, poor academic and work performance, and larger financial burdens. The participants were 192 male and female undergraduate students at a university in Wisconsin. Survey data was statistically analyzed using cross-tabulations, mean comparisons, independent t-tests, and a reliability analysis. Statistically significant mean differences were found in support of the hypotheses. Implications for practitioners in college health services are to increase awareness, prevention, and access to comprehensive health services among all students. Implications for future research would be to use a larger and random sample in order to be able to generalize to the greater college student population.

### **Introduction**

Researchers have found evidence that those college

students who had inadequate health insurance tended to have difficulties focusing on their academics and work. Students also had trouble obtaining appropriate health care (Holahan & Cook, 2008; Nicoteri & Arnold, 2005; Nichol, D'Heilly, & Ehlinger, 2005; Molnar, 2002). College students who suffered from cold and flu viruses were more likely to miss class or work, or refrain from seeking medical attention until they were rushed to the emergency room. Students who had regular check-ups and received appropriate vaccinations were shown to have a higher health-related quality of life according to researchers (Nicoteri & Arnold 2005; Nichol et al. 2005). Studies have found that even when college students are insured, they are not always aware of their benefits. They are also not aware of which facilities they are able to use and reported waiting to visit the doctor until they are in need of emergency medical attention (Molnar, 2002). Is there enough evidence among researchers to state that college students who have inadequate health insurance are more negatively affected in their daily lives? After researchers reviewed current literature on the relationship between college students and health insurance, college students, ages eighteen and above, were surveyed at a small Midwestern university to study this relationship.

### **Literature Review**

Researchers have addressed the issue of health care and the lack of knowledge many people have regarding their health care coverage. The main focus of the literature was the behaviors college students had toward accessing health care and what their current health care insurance covers. Researchers looked at statistical changes in the United States health insurance coverage, which showed health insurance is still decreasing. Another study focused on the health care-seeking behaviors in traditional-aged, undergraduate college students, which provided valuable information regarding

students' health care coverage and how they reacted to it. Results showed that lower classmen were more unaware of their health care options and hesitant to access them, which resulted in many unnecessary trips to the emergency room. Educating college students about their health insurance can help students understand their health care possibilities. The third study researched the impact illnesses had on health, academic and work performance, as well as health care center use. This cross-sectional study (which is a study of individuals based on different criteria at the same point in time) identified the importance of student health insurance waiver forms and the reliability of them. This is important because many universities are not required by law to pay any medical bills, and with the waivers can protect the college from lawsuits brought against them. Health insurance coverage and knowledge among young people have very low statistics (Holahan & Cook, 2008; Nicoteri & Arnold, 2005; Nichol et al. 2005; Molnar, 2002).

Holahan and Cook (2008) studied two sets of people in relation to the United States economy and the changes that it had on health insurance coverage from 2000-2006. The first data set examined was one in which the U.S. economy was in a recession or emerging from it and the second set was one in which the economy was expanding. This study showed that within the first major period, the rate of employer coverage for adults fell by 4.6% points. Even when the economy improved, the uninsured rate still increased. The cause of the increase in these uninsured rates may have been due to the increased cost of health insurance premiums. The more expensive the insurance package was, the more that was deducted from a worker's paycheck. This could be detrimental to low-income individuals.

Nicoteri and Arnold (2005) focused on undergraduate students and their development of health care-seeking behaviors. They conducted a pilot study with a focus group

of eight traditional-aged students. They found that there are five major themes that students seeking health care autonomously displayed. These major themes included: needing care or help, expectations, decision making, healthcare accessibility, and future needs. The authors also took into account other influencing factors such as: peers, the society, and the socialization process. The students stated they felt fairly comfortable regarding where to go for their health care needs and what to expect; however, the younger participants were more hesitant and unsure of what to expect. Further research is needed to understand how students develop their behaviors toward seeking health care so that providers may impact students at a more direct level.

Nichol et al. (2005) conducted a cohort study with college students who were infected with cold and flu viruses to see the effects it had on their health, academic and work performance as well as their use of health care. The participants included 3,249 college students with a mean age of 22.9 and sampled from the University of Minnesota, Twin Cities. Monthly follow-ups were conducted over a five month period. Of all the participants, 91% had one or more upper respiratory illnesses (URIs). Of this 91%, 83% had one or more colds and 36.7% had one or more influenza-like illnesses (ILIs). The students who were infected missed 4.263 school days and only 22.2% of them visited a health care center once or more. This study concluded that URIs and ILIs are prevalent among college students. The effects they have on students are quite detrimental on their class attendance and mental state. They stated that increasing prevention and vaccinations could increase the wellness of students in our nation. The fact that many college students are getting infected without much treatment may be a cue for health care centers to be more accessible to students.

Molnar (2002) examined Cornell University (CU) students' insurance waiver forms. If a student did not decide

to purchase the university's health insurance plan, CU required them to fill out a student health insurance waiver form, which documented for the university that they had adequate health care coverage. These waiver forms had to meet several requirements under CU's request. Molnar conducted a cross-sectional study to see how many of the forms were in fact, not covered. Of 12,000 student waivers for one academic year, CU staff selected 372 random waivers for the audit which consisted of undergraduate, graduate, and professional students. The ages of the students in this study ranged from 17-45 years. The results showed that 31% of the student's waivers were not covered by a health insurance company. Of the students who had insurance waivers, 43% did not meet the specific requirements and were therefore denied. This study showed that the majority of students who were covered were generally covered through a parent or guardian. The remaining students from this majority were students who had purchased insurance coverage on their own. This study concluded that over 40% of the waiver forms were from students who were uninsured or had inadequate insurance. This study showed that many students from one university had inadequate health coverage or no coverage at all. Of the students that had health care coverage, most obtained coverage through their parent or guardian; however, several had to purchase their own health care coverage while going to school.

Overall, this research topic was missing information on the current status of college students' health care coverage and the effects it specifically had on their lives. Research has shown that the economy affects health insurance costs and accessibility through employment. As the economy has fallen into a recession, the cost of health insurance grew higher as did the number of uninsured individuals, primarily through job loss. Insurance packages became more expensive which deducted more from a worker's income. This was especially

detrimental to low-income individuals. This is a very serious issue in our country and is relevant today in times of economic uncertainty. As students think about their health insurance now and after graduation, it is very important for them to think about where the current economy stands and how it will affect the future health care system outlook. Research is lacking in the area of current college students' attitudes regarding their health care coverage and what affects their coverage or lack thereof has on their quality of life.

### **Theoretical Framework**

This study applied the Family Ecology framework (Bubloz & Sontag, 1993). The Family Ecology Theory assumes that individuals going through developmental processes are influenced by the environments in which they live. The environment that influences individual development consists of these four organizational concepts: microsystem, mesosystem, exosystem, and macrosystem. The microsystem immediately affects the direct environmental setting; the mesosystem is the interlinked collection of microsystems; the exosystem is two or more indirect settings that affect the individual, and the macrosystem is the outer most influence on values, norms and patterns that contributes to the individual's response to society.

The application of the Family Ecology Theory to this study would predict that the college student's overall well-being would be affected negatively if they are not adequately health-insured. The Family Ecology Theory would predict that the status of the students' or parents health insurance would have immediate limitations and constraints on the students' well-being. Another prediction according to the theory, having parents that have lost their health benefits at work would result in the student losing their health insurance or paying for it themselves. The theory would also predict that the state of the economy would result in a lack of

adequate health benefits which would affect the students' availability of health insurance. Lastly, the societal attitudes and values towards health insurance would have an impact on the students' future.

### **Purpose Statement**

The purpose of this study was threefold: (1) to examine the attitudes college students have regarding health insurance and how it impacts quality of life; (2) to develop a reliable survey instrument to measure the affects health insurance has on college students' lives, and (3) to provide data to help support the importance of accessible, affordable, and adequate health insurance. The authors found a similar study by Molnar (2002) who found that almost half of the college students were inadequately or completely uninsured.

The central research question in this study was "What are college student attitudes regarding the impact of health insurance on their lives?" The authors predicted that college students who were not insured would suffer higher stress levels and lower overall quality of life. It was hypothesized that college students would report high levels of stress, poor academic and work performance, and large financial burdens due to being uninsured or having inadequate health insurance. As for the college students who were adequately insured, they would have reported lower levels of financial difficulties and stress and higher levels of academic achievement. The authors' hypothesis was informed by the literature which reported a relationship between inadequate health insurance and negative effects on college students. This hypothesis was also supported by the Family Ecology Theory which helps explain a relationship between an individual's development and the context of their environment. College students who were insured inadequately or not at all could receive the proper medical care they needed. Therefore, based on Family Ecology Theory, students who had inadequate health

care would suffer from financial strain, poor work and school attendance and achievement, and their overall health.

## **Method**

### *Participants*

The site of this study was at a university in northwestern Wisconsin. The participants were 192 undergraduate students, 106 were female and 86 were male. There were 58 participants between the ages of 18-19, 45 between the ages of 20-21, 38 between the ages 22-23, 22 between the ages of 24-25, and the remaining 29 participants were 26 years or older. Regarding having a form of health insurance there were 120 participants that had health insurance and the other 72 did not have a form of health insurance. There were 110 participants whom had health insurance under their parents, and 82 participants that did not have health insurance under their parents. There were 19 participants who had health insurance on their own, and 173 participants that did not have health insurance on their own.

### *Research Design*

The purpose of this survey research was to investigate the affects college students' health insurance had on their lives and be able to generalize to a population with similar attitudes (Babbie, 1990). The survey design type is best described as a cross-sectional study design in that it was used to capture attitudes from a cross-section of the population at one point in time. The form of data collection was self-administered questionnaires. The rationale for using self administered questionnaires was that it was the most efficient way to collect data on campus, due to the limited time frame of our research course and the quick return of data. The population was the university student population; the sample was male and female students in theatre, speech and management classes. The study used a non-random purposive sample

design; this is because the purpose of going into these specific classes was to gather information from an equal ratio of male and female undergraduate students. Throughout the short period of time that was given, randomization was not used in order to be able to reach the targeted sample number. The ethical protection of human subjects was provided by completing the Human Subjects Institutional Review Board (IRB) training; this study has been approved by the IRB.

### *Data Collection Instrument*

A survey was designed to address the attitudes of students regarding their health insurance. The survey included a cover letter with an implied consent which included a description of the study, risks and benefits, time commitment, confidentiality, voluntary participation, and contact information of the research team and the supervisor as well as instructions for completing the survey.

The survey consisted of three demographic questions relating to gender, age, and the status of their health insurance to compare groups and analyze our data. Students were then given six closed-ended statements based on a 5-point Likert scale which measured the intensity of the respondents' attitudes ranging from one (strongly disagree) to five (strongly agree). Questions were informed by literature and theory regarding what related to attitudes regarding college students' health insurance status.

The survey instrument has both face validity and content validity. Face validity refers to the instrument questions being relevant to the concept and research question. Since the questions and concepts addressed in the survey were inspired by literature, it was determined that they were clearly relevant to the larger problem of uninsured students. Content validity refers to the instrument statements' coverage of all the concepts under the larger topic. The questions addressed a broad range of issues regarding

students' knowledge, status, and attitudes regarding their own health insurance. To increase validity, the survey was piloted to four undergraduate students. Feedback indicated that the survey was clear and ready for distribution.

### *Procedure*

Professors were first contacted by email to receive approval to survey their students between November 9, 2009 and November 15, 2009. The purposive sampling design led the researchers into the buildings where the classes had both male and female undergraduate students. Students were introduced to the researchers; then were given basic information found in the description part of the implied consent form. This was followed by expressing the importance of their participation and appreciation for taking their time to complete the survey. The implied consent form was read aloud to the students as they followed along. The students were told that their participation was completely voluntary and that they would be able to withdraw from taking the survey at any time. They were asked if clarification was needed about the consent form but not the survey. They were then asked to detach the implied consent form for them to keep; they then took the survey at their desks after the researchers and the professor left the classroom. They put their surveys into a manila envelope that was placed at the front of the classroom. The surveys were collected and the researchers thanked the participants and professor for their contribution to the research. When the surveys were collected, they were kept in a locked file cabinet in one of the researcher's homes until data analysis.

### *Data Analysis Plan*

The data was first "cleaned" and checked for any missing data. The first five questions on the survey were demographic variables: gender, age, and three questions

regarding current health insurance status. The only independent variable was if the student had a form of health insurance (*INS*). Each survey statement was a dependent variable and given an acronym name: To determine if the participant has access to services that meet the health needs (*ACC*), if the participant is able to afford out of pocket medical expenses (*EXP*), if they are able to provide for their health needs (*PRO*), if the participant has visited a health care professional within the last year (*VIS*), the respondents visit a health provider for preventive care (*CAR*), and if they worry in the future that they may lose their health insurance if they lose their job (*LOS*). To analyze the data, the data-analyzing computer program called *Statistical Package for the Social Sciences* (SPSS), was used. The individual was used as the level of analysis. Given that the groups were being compared based on their current health insurance status, data analysis included: frequencies, cross-tabulations, mean comparisons, and independent t-tests. A Cronbach's Alpha reliability analysis was also conducted.

## Results

The computer program *Statistical Package for the Social Sciences* (SPSS) was used to analyze the data collected. The analyses variables were subjected to include: frequencies, cross-tabulations, mean comparisons, independent t-tests, and a reliability analysis. The first analysis run was a frequency distribution analysis. This analysis indicated that there was no data missing from the surveys.

Cross-tabulations were run with the independent variable, *INS*. For *EXP*, *PRO*, and *CAR*, there appeared to be a difference between groups with the majority of uninsured students having disagreed. For *ACC* and *VIS*, the majority of insured students strongly agreed. For *LOS*, the majority of insured students strongly disagreed, but the majority

of uninsured students strongly agreed (refer to Table 1 for Cross-Tabulations and Table 2 for Mean Comparisons).

Table 1  
*Cross-Tabulations*

ACC						
INS	SD	D	U	A	SA	Total
Yes	.8%	3.3%	10.0%	30.0%	55.8%	100.0%
No	25.0%	8.3%	27.8%	12.5%	26.4%	100.0%
EXP						
INS	SD	D	U	A	SA	Total
Yes	25.0%	20.0%	20.0%	16.7%	18.3%	100.0%
No	75.0%	9.7%	8.3%	.0%	6.9%	100.0%
PRO						
INS	SD	D	U	A	SA	Total
Yes	7.5%	8.3%	19.2%	30.0%	35.0%	100.0%
No	52.8%	0.0%	36.1%	4.2%	6.9%	100.0%
VIS						
INS	SD	D	U	A	SA	Total
Yes	9.2%	2.5%	5.8%	15.8%	67.5%	100.0%
No	40.3%	12.5%	18.1%	0.0%	29.2%	100.0%
CAR						
INS	SD	D	U	A	SA	Total
Yes	13.3%	16.7%	21.7%	19.2%	29.2%	100.0%
No	61.1%	18.1%	20.8%	0.0%	0.0%	100.0%
LOS						
INS	SD	D	U	A	SA	Total
Yes	28.3%	17.5%	19.2%	14.2%	20.8%	100.0%
No	13.9%	16.7%	18.1%	8.3%	43.1%	100.0%

*Note.* (ACC)=Students have access to health need services; (EXP) =Students are able to afford out of pocket medical expenses; (PRO) =Students are able to provide for their health needs; (VIS) =Students have visited health care provider within one year; (CAR) = Students visit a health care provider for preventative care; (LOS) =Students worry they will lose their insurance in the future if they lose their job.

Table 2  
Compare Means

INS	ACC	EXP	PRO	VIS	CAR	LOS
Yes:						
Mean:	4.37	2.83	3.77	4.29	3.34	2.82
SD:	0.86	1.45	1.23	1.26	1.40	1.51
Range:	4.00	4.00	4.00	4.00	4.00	4.00
No:						
Mean:	3.07	1.54	2.13	2.66	1.60	3.50
SD:	1.51	1.13	1.30	1.68	0.82	1.52
Range:	3.00	4.00	4.00	4.00	2.00	4.00

Note. (ACC)=Students have access to health need services; (EXP) =Students are able to afford out of pocket medical expenses; (PRO) =Students are able to provide for their health needs; (VIS) =Students have visited health care provider within one year; (CAR) = Students visit a health care provider for preventative care; (LOS) = Students worry they will lose their insurance in the future if they lose their job.

An independent samples t-test was run to compare mean scores for insured and uninsured students. There were four variables with significant mean differences between the two groups of students (refer to Table 3).

Table 3  
Independent T-tests

Variable	Insurance		t	Df	Sig.
	Yes	No			
ACC	3.37 (.859)	3.07 (1.51)	6.66	98.9	*0.000
EXP	2.83 (1.45)	1.54 (1.13)	6.91	177.4	*0.000
PRO	3.77 (1.23)	2.13 (1.30)	8.65	142.9	0.054
VIS	4.29 (1.30)	1.26 (1.68)	7.16	118.9	*0.000
CAR	3.34 (1.40)	1.60 (.816)	10.9	189.9	*0.000
LOS	2.82 (1.51)	3.50 (1.52)	-3.026	148.6	0.562

Note. (ACC)=Students have access to health need services; (EXP) =Students are able to afford out of pocket medical expenses; (PRO) =Students are able to provide for their health needs; (VIS) =Students have visited health care provider within one year; (CAR) = Students visit a health care provider for preventative care; (LOS) =Students worry they will lose their insurance in the future if they lose their job. \*significant @  $p < .01$ , two tailed. Standard deviations appear in parentheses below means.

A reliability analysis was run to indicate if the variables were a reliable index to measure the major concept: College students' attitudes regarding the impact health insurance has on their lives. Cronbach's Alpha is a measure of reliability and was .576. This value indicated that survey items were a moderately reliable measure of the major concept. If the variable *LOS* were removed, the reliability would raise to .790.

## **Discussion**

Overall, results supported the hypothesis that college students would report higher levels of stress, poor academic and work performance, and larger financial burdens due to being uninsured or having inadequate health insurance; significant mean differences were found ( $p < .01$  level). These differences were supported in the literature (Holahan & Cook, 2008; Nicoteri & Arnold, 2005; Nichol, D'Heilly, & Ehlinger, 2005; Molnar, 2002). Each dependent variable will be discussed in terms of how the results were supported in the literature and /or through the theoretical framework. Thereafter, limitations to the study, implications for practitioners, implications for future research, and concluding remarks will be discussed.

Statistically significant mean differences were found in four out of six variables (*ACC-access to health services*, *EXP-medical expenses*, *PRO-able to provide for health care needs*, *VIS-visited health care provider*, *CAR-preventative care*, *LOS-worry they will lose their health insurance*) in support of the hypothesis. Results showed that more respondents who had health insurance agreed that they had access to health services while the uninsured students had a wide range of results with the majority falling below undecided. This was not supported in the literature. According to Nichol et al., college students are getting sick and do not have access to health care centers (2005). The

next survey statement was that students were able to afford out of pocket medical expenses; the majority of both groups disagreed which was supported in the literature. Holahan & Cook (2008) stated that low-income individuals were not able to afford health insurance packages out of pocket due to increased cost of health insurance premiums. The majority of insured students strongly agreed that they visited a health care provider within one year while the majority of uninsured students did not. According to Niceteri & Arnold (2005) college students were unsure about accessing health care services. Lack of education about their current coverage made them unaware of their current health care possibilities which resulted in some students visiting the emergency room unnecessarily. The next survey statement interestingly showed the majority of students who were insured were undecided regarding if they visited a health care provider for preventative care. The majority of uninsured students strongly disagreed with this statement. These two findings were both supported by Nicoteri & Arnold (2005) who focused on the development of health care-seeking behaviors. Often, students are not informed on what their insurance covers and have been shown to not visit a health care provider without their parent's initiation to set up an appointment. Students may have not understood the statement clearly which resulted in the many undecided responses. The survey statement that students are able to provide for their health needs showed that the majority of insured students were undecided while the majority of uninsured students disagreed. This is supported by the literature which states that many students had inadequate or no coverage at all (Molnar, 2002). The undecided may have been a result from the insured students because they do not deal with expenses when they are insured or have their parents (if insured under their parents) take care of the finances. Regarding the last survey statement that students worry they will lose their

insurance in the future if they lose their job, the majority of uninsured students strongly agreed while the insured students were undecided. Insured students may not realize the importance of health insurance and do not think it will affect them if they were to lose their insurance. Nicoteri & Arnold (2005) supported these findings with the five major themes in college students who seek health care services: needing care or help, expectations, decision making, health care accessibility, and future needs. Students need to be educated on their health care options.

### *Limitations*

This study used a nonrandom sample which did not allow for generalization to the larger population of college students. The Likert scale might be too limited in range and could account for the undecided responses.

### *Implications for Practitioners*

The results showed that implications for college health services would be to increase awareness and prevention as well as access to comprehensive health services among all students. Our results significantly demonstrated that the majority of uninsured students were concerned with the cost of health care which, in turn, resulted in few or no doctor visits within the past year. Attention needs to be taken to the state and national policy levels.

### *Implications for Future Research*

It is recommended that the next step of research be to survey a large, random, national university sample. If this study were to be replicated, rewording or eliminating the variable (LOS) would be suggested: *students worry they will lose their insurance in the future if they lose their job*. According to the reliability statistics, Cronbach's Alpha would raise from .576 to .790. This may be because it is

the only statement that does not currently affect their health insurance needs. It would also be recommended that a more varied measurement scale be used to provide a greater range of responses.

### **Conclusion**

As a result of this study, it is hoped that access to health care services for college students will be recognized as an issue that needs to be addressed in college campuses nationwide at the state and national policy levels. Education and communication regarding the importance of health care service accessibility among college students, their parents, universities, and health care providers needs to be implemented. Our findings showed that the majority of uninsured individuals were students who were twenty-six and older. These were the students who were most concerned with their health care, no longer on their parent's insurance, did not visit a health practitioner within the last year, and who also could not afford out of pocket expenses. This shows the importance of providing accessible and affordable health care to all students. This could allow students not to worry about the financial burden of health care costs and have the ability to access health care services confidently to promote healthy lifestyles.

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