Changes in Student Wellness During the First Year of College

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Introduction

An examination of current college student health and wellness literature revealed that there were no comprehensive models of wellness and few longitudinal studies of wellness. As a result, we designed a new instrument that would measure students’ wellness holistically, and would be used to study changes in wellness over time.

Survey Design procedures:
- The literature formed the basis of the instrument.
- Campus health and wellness professionals reviewed the instrument multiple times.
- Prospect administrators invited students from multiple campuses to take the survey and provide feedback.
- Pilot administration among incoming first-year students prior to their orientation in summer 2011.
- Exploratory factor analysis was used to identify the underlying constructs and eliminate variables that did not fit the (confirmatory) factor analysis underlying.
- Cognitive interviews were conducted with a sample of respondents from the 2011 pilot and the survey was revised as a result.

This presentation focuses on two administrations of the revised Student Health and Wellness Inventory in the 2012-2013 academic year. First, we administered the revised instrument in the first-year students prior to their orientation in summer 2012 (T1). The instrument was then administered in March 2013 to all T1 respondents who were enrolled in spring 2013 (T2).

The survey was administered through Carmen, the online course management system at The Ohio State University. Based on enrollment in the Carmen course, the first administration had an 89% response rate, with 3,786 respondents. After checking Ohio State enrollment in the Student Information System (SIS), 3,792 cases were retained. The sample size for the second administration was 3,893, with 875 students (22%) not enrolled, 838 did not consent to future research. The response rate for T2 was 26.7%, with 796 respondents.

The main objectives of the research is to determine if college students leave postsecondary education with better health and wellness behaviors than when they enter. This presentation examines changes that occurred during the first year of college.

Methods

All parts of this research study have been approved by the Institutional Review Board of The Ohio State University.

The survey was administered in incoming first-year students prior to their orientation in summer 2012. A pre-orientation checklist e-mailed to students included information on how to access the survey. The survey was delivered in the university’s online survey management system, Carmen, using Qualtrics survey software. In addition to it linking to the survey, students were asked if they would like to participate in future research, and if so, whether they would allow access to their educational records so that measures of health and wellness could be studied in relation to traditional measures of success in the university (e.g., GPA, retention, four-year graduation).

All students who responded to the first administration and remained enrolled throughout autumn 2012 and spring 2013 were invited to take the survey again. In March 2013 through emails that linked to Carmen.

Only data from students who took both surveys were compared. CI-square tests of cross-tabulation and paired sample t-tests of means were used to determine if statistically significant differences were present. Body Mass Index (BMI) was calculated from self-reported height and weight using the formula BMI = weight (pounds) / height (inches)² / 703.

Results

The paired samples t-tests revealed statistically significant differences from T1 to T2 on 63 out of 69 variables. The differences from T1 to T2 show a trend toward less healthy behaviors and decreased wellness. Two variables that did not reach statistically significant difference in the t-tests were; I feel that I have little control over my life; I feel unsupported by my family. I am concerned about my financial future. I consider myself to be spiritual/religious; I engage in mentally stimulating activities; I am free of credit card debt.

There are a selection of the statistically significant cross-tabulation (p < .05), which also show a trend toward less healthy behaviors and decreased wellness.

Opportunities for Intervention

The Student Health and Wellness Inventory can be used for intervention both at the individual and the population level. The data will also allow us to view trends on the population level to inform population-level interventions and policies. Population-level data could help inform First-Year Experiences course outcomes. Resident hall advising, extra-curricular activities provided by housing services, and other university structures that influence the experiences of students in their first year.

Limitations

Demographic data (including height and weight) were self-reported. Although the paired sample analysis helps to make statistical generalization, the people who took the survey twice may differ from those who only took it once. Similarly, as apparent from the reduction in the sample from T1 to T2, attrition is an issue with longitudinal studies.

Validating a new instrument takes time. While we have taken steps (i.e., literature review, expert reviews, pre-pilot, cognitive interviews) to ensure the instrument is sound, additional work needs to be done to confirm the validity and reliability of the instrument.

This study only used the instrument with first-year, first-time college students of traditional age. Who are concentrated throughout their colleagues, who take the survey twice may differ from those who only took it once. Similarly, as apparent from the reduction in the sample from T1 to T2, attrition is an issue with longitudinal studies.

Therefore, the longitudinal study should be replicated with a variety of samples.

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Students in project study and cognitive interviews.

2011 cohort and 2012 cohorts.