

# Linking Health to Academic Success and Retention

*Jim Grizzell, MBA, MA, CHES, FACHA and Michael McNeil, MS*

Student retention and academic success are top priorities of universities, their respective colleges/units and students.<sup>1</sup> Much of the research on why students are not successful and leave does not succinctly provide classifying reasons and fewer yet investigate health as a factor. A few studies do give a glimpse at the positive associations between academic success and health behaviors and status. The university Student Health Service, including health promotion, has improved health behaviors, health status as well as academic performance and retention yet we are rarely able to prove it. National health organizations offer support and guidelines to inform and influence individual and community decisions that enhance health, academic success and retention.<sup>2</sup>

## Defining Retention & Health

There are many different definitions related to retention of students in higher education. Berger & Lyons<sup>3</sup> offer the following concepts:

**Attrition:** a student who fails to reenroll at a particular institution

**Dismissal:** a student who is not permitted to continue enrollment (by the institution).

**Dropout:** a student that was seeking a degree but fails to complete and leaves the institution.

**Persistence:** the desire and action of a student to earn a degree from a post-secondary institution.

**Retention:** an institutional ability to keep a student from admission/enrollment to graduation.

**Stopout:** a student that temporarily leaves the institution.

Few would argue with the idea that the vast majority of students enroll in post-secondary education to earn a degree. Given this outcome-oriented motivation, it is important that the field of college health examine the role of health and health services in supporting student success (graduation). Research shows that about one-third of students beginning postsecondary education left without a degree and there is limited information about how health affects retention.<sup>4</sup>

Exit surveys looking at why students leave the university rarely ask in-depth questions about health and the findings do not help Student Affairs and health professionals determine priority health issues to address. The ACT<sup>5</sup> survey asked about the degree to which three institutional factors and student characteristics were related to attrition. The institution factor was “Academic Support Services (learning centers, similar resources)” and ranked in the middle of 24 factors. Student characteristics identified that affected attrition were the degree of “Physical Health Problems” and “Mental or Emotional Health Problems.” Each ranked in the bottom five of 15 factors. Additionally, a third of students did not give a reason for leaving.

Somewhat specific reasons from one study with 729 student records from an upstate New York private university show the broad description of why students leave. Rummel<sup>6</sup> found the following reasons for institutional departure:

- No reason given (29.8 %)
- University dropped the student (28.9%)
- Personal reasons (19.9%)
- Found another school/transferred (11.5%)
- Academic (5.5%)
- Financial problems (3.8%)
- Medical problems (0.5%)

## Why Retention Matters

Student academic success and retention are indicators that the university is doing what it says — its responsibility and mission to provide an education and an academically enriching experience. From the university’s perspective it is less expensive to help current students succeed than to recruit new students. Watson<sup>7</sup> provides this basic example:

If the total recruitment/enrollment management budget for Institution X is \$1,000,000, and 6-year cohort graduation rate is only 50%, then \$500,000 is lost in efficiency.

Additionally, good retention rates attract future outstanding students, help national rankings and are linked with better support and funding. From the institution’s

*“Much of the research on why students are not successful and leave does not sufficiently provide classifying reasons and fewer yet investigate health as a factor.”*

perspective, retention reduces the loss of top performing students and creates a larger alumni base. Most students have expectations to succeed and there is a positive return on investment for the student as well as the student’s community.<sup>1</sup>

### What We Do Know

The top priority status of health and academic success comes from Student Affairs and Student Health professionals. In the Standards of Practice for Health Promotion in Higher Education, the American College Health Association (ACHA) has stated that the learning mission of the institution should be addressed.<sup>8</sup> Data from the ACHA-National College Health Assessment (ACHA-NCHA) finds that 15% to over 30% of student’s academics are adversely affected by relationship difficulties, concern for a family member or friend, or stress.<sup>9</sup> Additionally, the ACHA-NCHA has questions specifically asking about grades, mental and physical health concerns and health impediments to learning. While these are self-reported and not direct measures to retention, they provide some indicators and suggest future research directions.

Furthermore, ACHA’s Administration Section’s annual needs assessments typically list interest in retention as it relates to health and illness. This indicates that key campus leaders are asking a multitude of units to demonstrate how their functions support the overall institutional mission.

Levitz and Noel<sup>10</sup> listed the following issues associated with attrition at an Annual National Conference on Student Retention (noting some as myths):

- Retention will improve without changing our behavior
- Students bring a cogent map of college success to campus
- Retention means lowering standards
- Academic preparedness equates to persistence
- Finances, work, and/or family are the sole reasons students drop out
- Exit interviews will help shape a retention improvement effort

As a synopsis of the research on why students leave higher education, the most common include the following:<sup>11</sup>

- Poor academic preparedness
- Low supportive campus climate
- Low commitment to educational goals and the institution
- Poor social and academic integration
- Lack of financial aid

The literature provides several key health issues that should be addressed to ensure academic success and retention. Health behaviors related to alcohol, sleep, smoking, wake-up times and other negative health behaviors have been noted. While not casual studies, the following can be found in the published literature:

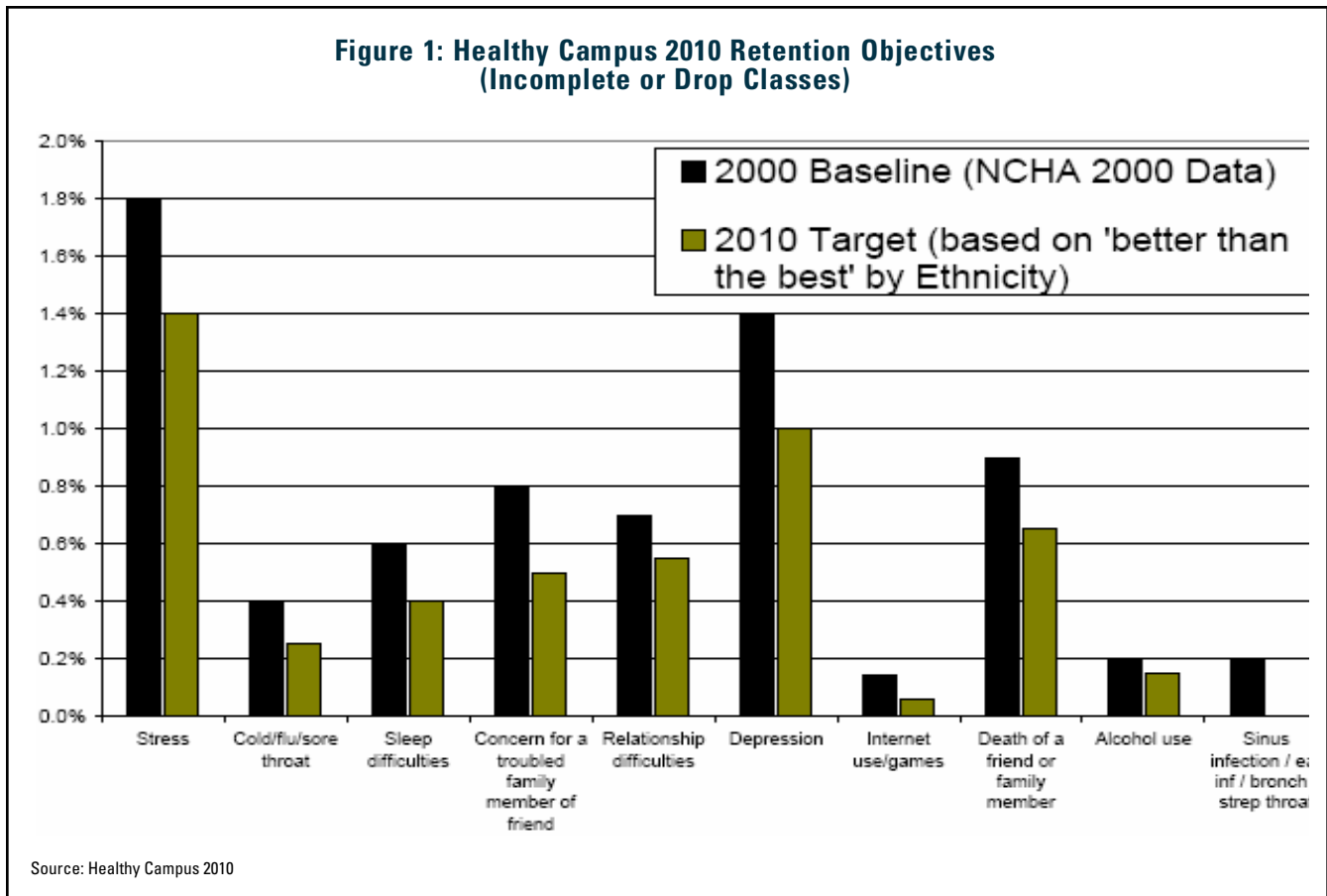
- Depressed mood is negatively correlated with academic performance.<sup>12</sup>
- Late wake-up times are associated with lower GPAs in first-year students.<sup>13</sup>
- There are elevated risks for alcohol-related educational problems among binge drinkers.<sup>14</sup>
- More negative health behaviors were prevalent in mid-range students than high performing nursing students.<sup>15</sup>

Two studies provide evidence-based views of how health is associated with academic success and retention and how each can be improved. DeBerad<sup>16</sup> and colleagues conducted a multiple linear regression from a longitudinal study of academic achievement and retention that included health-related measures. The authors generated an equation using 10 predictor variables that accounted for 56% of the variance in academic achievement.

The authors stated that this equation represents a substantial improvement over using high school GPA and SAT scores. Similar to past research, some health and psychosocial variables (smoking, drinking, health-related quality of life, social support, and maladaptive coping strategies) were related to retention. The authors stated that this model may be used as a tool to proactively identify students at high risk for poor academic performance during their freshman year and to provide direction regarding proactive intervention strategies for maladaptive

*“If we as the college health field are going to clearly demonstrate our value we must evolve better measures and publish our findings.”*

**Figure 1: Healthy Campus 2010 Retention Objectives (Incomplete or Drop Classes)**



behaviors predictive of poor academic performance (e.g., smoking, social support, or coping).

Additionally, they found that coping emerges as a significant predictor of achievement. Acceptance-focused coping (blaming oneself for one's problems lowering effort, increasing helplessness) was related to poor academic performance. Social support was a significant independent predictor of academic achievement. Smoking was a significant predictor of academic performance and appears related to escape-avoidance coping. From the Short Form 36 Mental Health Component Summary (SF-36-MCS) tool, overall level of mental health was a significant predictor of achievement.

In the second study, Rutgers University<sup>17</sup> health staff conducted a health promotion disease prevention program that had positive effects on health, academic success and retention. University officials offered economically disadvantaged first year students thorough physical examinations, providing treatment when necessary,

health counseling and a six-hour health education class. The exams revealed primarily social, behavioral and environmental health problems of anemia, obesity, high blood pressure and sexually transmitted infections/diseases (STDs). Additionally, the students had very poor nutrition.

The intervention resulted in fewer unwanted pregnancies and STDs than students not in the intervention. Of Equal Opportunity Fund Program (EOF) women students who entered Rutgers before the program was launched, 7% had unplanned pregnancies compared to 2% who entered Rutgers a year later when the program was conducted. Likewise, 24% of women and 10% of men were treated for STDs in the year before the intervention compared to 8% of women and 6% of men the following year. The Student Health Services (SHS) and EOF directors were able to correlate classroom attendance, retention and grade point average to utilization of health services.

## What We Do Not Know

The Center for the Study of College Student Retention (CSCSR)<sup>18</sup> provides researchers and practitioners with a comprehensive resource for finding information on college student retention and attrition. It publishes the *Journal of College Student Retention: Research, Theory & Practice*, has a listserv and a list of literature references with nearly 150 citations. Unfortunately, only about 10 of the citation titles mention physical, social or mental health-related concerns. This lack of support in the literature clearly demonstrates the need for further study.

To support the field, ACHA's National Health Objectives Committee developed *Healthy Campus 2010* Mission and Retention Objectives with baselines and targets (see *Figure 1*).

While these numbers may provide useful, the ACHA-NCHA data is at best a proxy measure for this issue and leaves a significant gap in the literature. If we as the college health field are going to clearly demonstrate our role in retention and student success, we must evolve better measures and publish our findings.

## Recommendations to Improve Health, Academic Success and Retention

In a 1995 presentation, Dennis<sup>19</sup> suggests several keys to success that we can use to support retention of students. Three specific ideas are: get a clear understanding of the student population, conduct relevant research on why students leave and persist, and implement effective interventions. The notable lack of studies and published evidence-based interventions causes the most prominent recommendation to be: study the issue and publish. In the interim, there are some suggestive steps that may help.

The National Association of Student Personnel Administrators (NASPA)<sup>20</sup> has Knowledge Communities devoted to health, learning and retention. The Health in Higher Education Knowledge Community provides an institutionalized and ongoing structure to discuss creating health both on campus and within individuals to advance student learning and the mission of the university. NASPA sponsors the International Assessment & Retention Conference, with the next conference scheduled for June 2007. The Health Education Leadership and Planning (HELP) website provides activities, publications, reports,

and documents linking health and learning using the ecological approach. Among the major resources listed is the ACHA-NCHA.

We can have a very good picture of our target audiences by using the standards, resources and tools provided by ACHA and NASPA. Additionally, Helminiak and McNeil<sup>21</sup>, in presentations to both ACPA and ACHA, offered the following six areas as early steps to addressing this needed connection between student health and academic success/retention:

- Research and tracking of health behaviors and academic success measures (GPA, etc.)
- Research linking failure to complete a degree program and health-related factors
- Including academics in the vision/mission statements for college health programs (and HP/HE specifically)
- Curriculum infusion health promotion strategies
- Linking health promotion and the general education goals of the institution
- Including health/healthier communities in the institutional mission

The presenters acknowledge that without the first two steps, the field will continue to work in an environment that asks for answers based on information that does not exist.

## Summary

Student retention and academic success are top priorities of universities, their colleges/units and students. There is, unfortunately, little research that succinctly describes, in terms of health, the student populations that are academically successful and persist or those that are unsuccessful and leave. The ACHA-NCHA, plus a few studies, indicate that health-related problems affecting academic success and retention are many and varied. These include smoking, alcohol use, health-related quality of life, social support, and maladaptive coping strategies. Studies suggest the development of better assessment and testing of programs to begin the process of improving health behaviors, academic performance and retention.



*Jim Grizzell, MBA, MA, CHES, FACHA, is an ACHA Fellow and Cal Poly Pomona Outstanding Staff and Staff Emeritus. He was Lead Health Health Educator for Cal Poly for over 13 years. Among the successful programs and services implemented under his supervision was an award*

“Studies suggest the development of better assessment and testing of programs to begin the process of improving health behaviors, academic performance and retention.”

winning 21st Birthday Drinking Social Norms and Tips Birthday Card, the Study Well Health Assessment, Wellness Card and The Wellness Center. He was Chair and Co-chair of the National Health Objectives Task Force which created Healthy Campus 2010. He currently teaches online stress management and consumer health courses for Cal Poly and is a DrPH student at Loma Linda University. He has been on ACHA committees which developed the National College Health Assessment, Standards of Practice for Health promotion in Higher Education and Vision Into Action: Tools for Professional and Program Development. His current position is as the Health Education/Fitness Program Manager for the US Air Force, Surgeon General's Health Promotion Operations office in Washington, DC. He can be reached at [juvgrizzell@csupomona.edu](mailto:juvgrizzell@csupomona.edu).



Michael P. McNeil has been involved with college health since 1993 and has been studying the links between student health and academics since 2001. He currently serves as the Senior Health Educator with the Alice! Health Promotion Program, a unit of Health Services at Columbia University. Additionally, Mr. McNeil is the Chair-Elect of the ACHA Health Promotion Section, Secretary of the ACHA R.O.D. Coalition and Downstate NY Coordinator for the Bacchus Network. Michael holds a BA in Sociology, an MS in Health Education and is currently pursuing his doctorate. His past appointments include college health and adjunct faculty position with schools in Pennsylvania, New York and Florida. He can be reached at [mm3117@columbia.edu](mailto:mm3117@columbia.edu) or (212) 854-5453.

#### Notes:

1. Alford, K. and J. Rome. *Student Retention Tool: A Builder's Diary*. Available at <http://www.educause.edu/ir/library/pdf/CMR0325.pdf>.
2. National Cancer Society. *Pink Book: Making Health Communication Programs Work*. Available at [www.cancer.gov/pinkbook/page3](http://www.cancer.gov/pinkbook/page3).
3. Berger, J.B & Lyons, S. (2005). "Past to Present: A Historical Look at Retention." In Seldman, A. (Ed.) *College Student Retention: Formula for Student Success* Praeger Press.
4. U.S. Department of Education, National Center for Education Statistics. "Short-Term Enrollment in Postsecondary Education: Student Background and Institutional Differences in Reasons for Early Departure, 1996-98," *NCES 2003-153*, by Ellen M. Bradburn. Project Officer: C. Dennis Carroll. Washington, DC: 2002. Available at <http://www.ed.gov/about/offices/list/ovae/pi/cclo/reten.htm>.
5. Wesley R., R. McClanahan. "What works in student retention?" ACT. Available at [www.act.org/path/policy/pdf/retain\\_AllColleges.pdf](http://www.act.org/path/policy/pdf/retain_AllColleges.pdf). ACT. 2004.
6. Rummel, A., Acton, D., Costello, S., Pielow, G. "Is all retention good? an empirical study." *Coll Student J* 0146-3934, June 1, 1999, Vol. 33, Issue 2.
7. Watson, S. *Student Success: Improving Student Success: Improving Student Retention on Your Campus* 2004. Available at

- [www.educationalpolicy.org/pdf/RETENTION\\_POWERPOINT.pdf](http://www.educationalpolicy.org/pdf/RETENTION_POWERPOINT.pdf).
8. American College Health Association. *Standards of Practice for Health Promotions in Higher Education* Baltimore, MD. ACHA; 2001.
  9. American College Health Association, ACHA-NCHA reference group summary, Fall 2005. Available at [http://www.acha.org/projects\\_programs/NCHA\\_docs/ACHA-NCHA\\_Reference\\_Group\\_ExecutiveSummary\\_Fall2005.pdf](http://www.acha.org/projects_programs/NCHA_docs/ACHA-NCHA_Reference_Group_ExecutiveSummary_Fall2005.pdf).
  10. Levitz, R., & Noel, L. (1995, July). "The earth-shaking but quiet revolution in retention management." Paper presented at the 9th Annual National Conference on Student Retention in New York.
  11. Walters ST, Bennett ME, Noto JV. (2000). "Drinking on campus: What do we know about reducing alcohol use among college students." *J Subst Abuse Treat*. 2000; 19(3):223-228.
  12. Haines ME, Kashy DA, Norris MP. "The effects of depressed mood on academic performance in college students." *J of Coll Student Dev*. 1996; 37(5):219-526.
  13. Trockel MT, Barnes MD, Egget DL. "Health-related variables and academic performance among first-year college students: Implications for sleep and other behaviors." *J Am Coll Health* 2000;49(3):125-131.
  14. Wechsler H, Dowdall GW, Maenner G, Gledhill-Hoyt J, Lee H. "Changes in binge drinking and related problems among American college students between 1993 and 1997: Results of the Harvard School of Public Health College Alcohol Study." *J Am Coll Health*. 1998; 47(2):57-68.
  15. Poston I, Bowman JM, Rouse JO. "Health behaviors and academic success." *Nurs Educ*. 1994;19(2):24-27.
  16. DeBerard, M. S., Spielmans, G., Julka, D. "Predictors of academic achievement and retention among college freshmen: a longitudinal study." *Coll Student J* Mar 2004, Vol. 38 Issue 1, p. 66.
  17. Conciatore, J. "Rutgers university uses health services to stimulate retention." *Black Issues in Higher Education* 1991; 8:11,14.
  18. Center for the Study of College Student Retention. *Retention References* Available at [http://www.ccsr.org/retention\\_references.htm](http://www.ccsr.org/retention_references.htm).
  19. Dennis, M.J. (1995, July). "Developing an effective retention management system at your institution." Paper presented at the 9th Annual National Conference on Student Retention in New York.
  20. National Association of Student Personnel Administrators, Events: International Assessment & Retention Conference. Available at <http://www.naspa.org/events/detail.cfm?id=243>.
  21. Helminiak, B. & McNeil, M. (2004). "Linking health promotion with student academic success." Presented June 2004 at the Annual Meeting of the American College Health Association.

#### Suggested Readings:

1. American College Health Association. *Healthy Campus 2010: Making It Happen* Baltimore, MD. ACHA; 2001.
2. Centers for Disease Control. *CDCynergy Social Marketing, version 2*. Available at <http://www.cdc.gov/healthmarketing/cdcynergy/index.htm>.
3. Jensen MA, Peterson TL, Murphy RJ, Emmerling DA. "Relationship of health behaviors to alcohol and cigarette use by college students." *J Coll Student Dev* 1992;33(2):163-170.