

Leadership 2.0: Summer Bridge Programming to Address the Recruitment, Retention and Success of Underrepresented Students

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The Problem

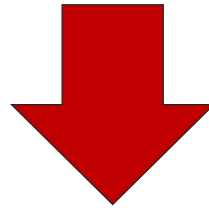
- The nursing workforce lacks diversity
- Workforce diversity improves patient outcomes
- Patients prefer patient-provider concordance

Demographics of Nursing Workforce Compared to Resident Statistics

Demographic	Univ. of Cincinnati	Cincinnati Health Workforce ¹	Hamilton County Demographics ²	National Workforce ^{*3}
% Male	12.9%	9.3%	51.8%	9.2-15%
% Hispanic	3.1%	Not reported	2.8%	4.4%-13.4%
% Black	8.4%	6.3%	26%	5.2-37.5%
% Non-Hispanic White	79.9%	91.3%	67%	54-89.5%

The Problem

- Students from underrepresented racial/ethnic (URE) and disadvantaged backgrounds are less likely to go to college
- Racial disparities exist for college entrance exams limiting acceptance into health professions schools
- URE and disadvantaged students experience difficulty transitioning to college resulting in:
 - Feelings of isolation
 - Lower GPA
 - Higher attrition



Purpose

- The purpose of this research study was to determine if a multi-faceted and contextual summer bridge program could improve academic outcomes for first-time degree seeking undergraduate nursing students from URE and disadvantaged backgrounds.
- Outcomes of Interest
 - First-year GPA
 - First-year retention



Preliminary Data

Retention Rate of UC Nursing Students by Demographic

Year Admitted	2009		2010		2011	
Demographic	Non-Hispanic White	URE	Non-Hispanic White	URE	Non-Hispanic Whites	URE
Freshman to Sophomore Retention	55%	25%	49%	36%	67%	33%
Sophomore to Junior Retention	97%	100%	96%	100%	N/A	N/A
Junior to Senior Retention	98%	100%	N/A	N/A	N/A	N/A

Preliminary Data

Needs Assessment- First-Year GPA

Academic Year	'09-'10	'10-'11	'11-'12	'12-'13
Non-Hispanic White	3.24	3.24	3.33	3.51
URE	2.60	3.22	2.92	3.48
First-generation	2.86	3.08	3.10	3.30

Students from underrepresented and disadvantaged backgrounds had lower first-year GPA as compared to White students

Intervention Development

- Informed by:
 - Literature review
 - Interviews with institutions with effective pipeline programs
 - Needs assessment data
 - Data from town hall meetings with neighboring communities
 - Social learning theory



Method

Intervention: The summer bridge is a 6-week residential program held during the summer between students' high school graduate and their first semester of college. The program is organized around 5 core areas that foster orientation to campus resources, academic success, and socialization with peers, faculty, and staff.

Evaluation: A mixed methods approach was used to evaluate the effectiveness of the summer bridge program using:

- pre- and post-summer bridge surveys
- one-on-one student interviews immediately post-summer bridge
- focus groups held

Summer Bridge Programming

Component	Programming
Academic Preparation	<ul style="list-style-type: none"> • anatomy and physiology, chemistry and math instruction • use of technology to facilitate learning-distribution of iPad minis • orientation to on-campus resources for learning • study tables • learning assessments (Myers-Briggs Type Indicator and Strengths Finder testing) • time management, anxiety reduction and test preparation workshops • library orientation
Socialization	<ul style="list-style-type: none"> • on-campus housing • social events • introduction to college leadership, faculty and staff • university orientation • orientation to student affinity groups

Summer Bridge Programming

Component	Programming
Clinical and Research Immersion Experiences	<ul style="list-style-type: none"> • clinical experiences in underserved areas • tour of clinical units at an urban, level-1 trauma center • tour of academic clinical-based research laboratory • simulation activities and tour of a smart house <u>collaboratory</u> at an assisted living center • field trips to large corporations that conduct research
Cultural Exposure	<ul style="list-style-type: none"> • tour of underserved neighborhood and learning activities on social determinants of health • field trip to cultural centers • reading discussion groups around social equality and ethics in healthcare
Financial Support	<ul style="list-style-type: none"> • paid housing and food during 6-week summer bridge • scholarship incentive for completing summer bridge program • financial literacy workshops

Summer Bridge Program Schedule

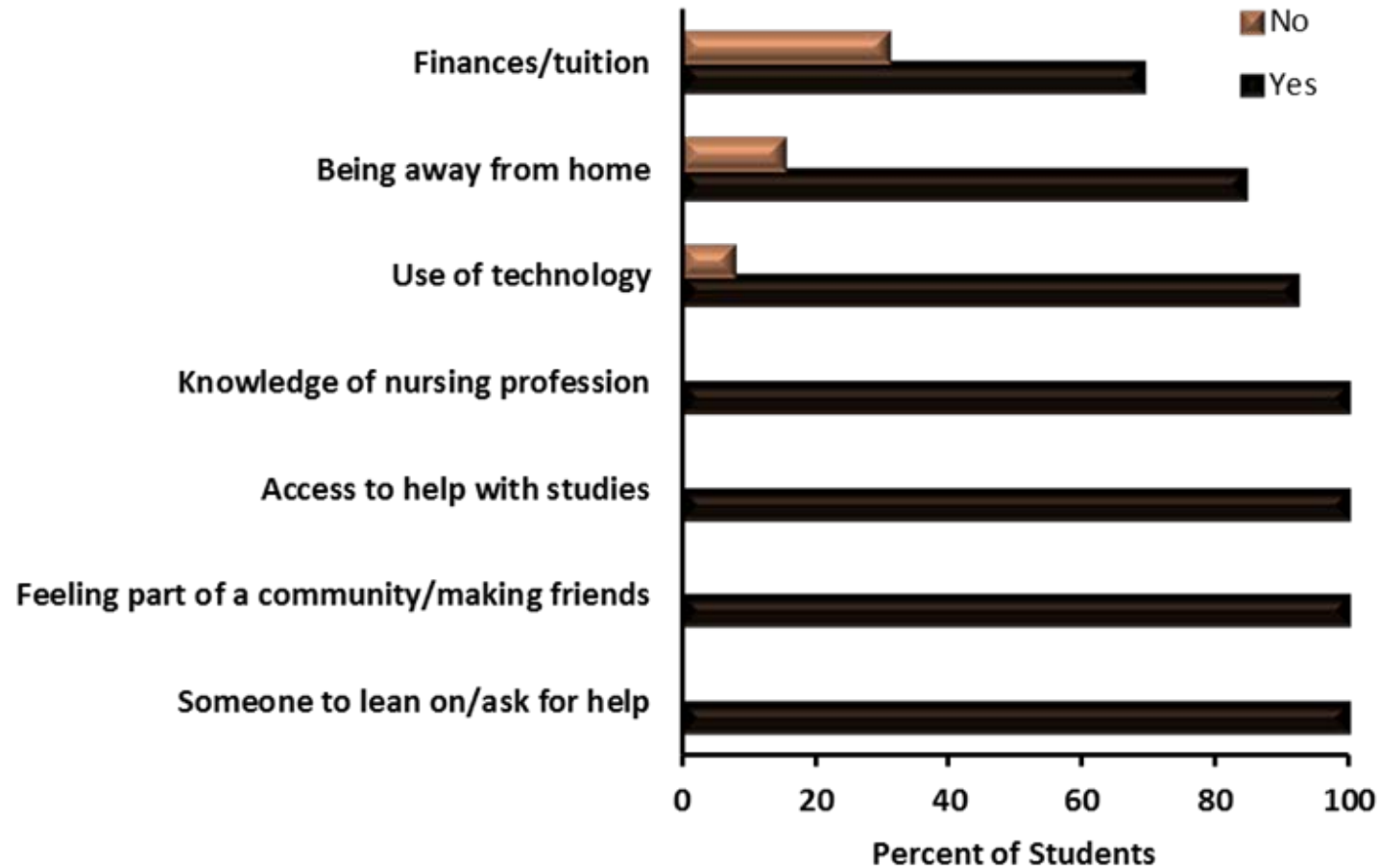
When	What	Who	Where
10:00-12:00pm	Collaboratory	Robin Wagner and Debi Sampsel	3 rd floor Collaboratory
12:00pm-12:45pm	Lunch/College Readiness Presentation	Andi Davis	Procter Hall Atrium
1:00-1:45pm	Instructional Design Workshop	Matt Rota and Yvette Pryse	288 Procter Hall
2:00-2:45pm	Microbiology Course	Joe Perazzo	101 Procter Hall
2:50-4:15pm	A&P Lab Demo	Josephine Rogers	French West

Results

Demographics of Leadership 2.0 Cohorts

Year Admitted	2013	2014
Ethnicity		
% Hispanic	0%	23%
Race		
% Black	15%	31%
% Asian	8%	15%
% Multi-racial	8%	8%
% White	69%	46%
Gender		
% Male	23%	15%
Disadvantaged Status		
Economically Disadvantaged	46%	54%
First-Generation	69%	38%
Cohort Size		
Total # L2.0 Students	13	13

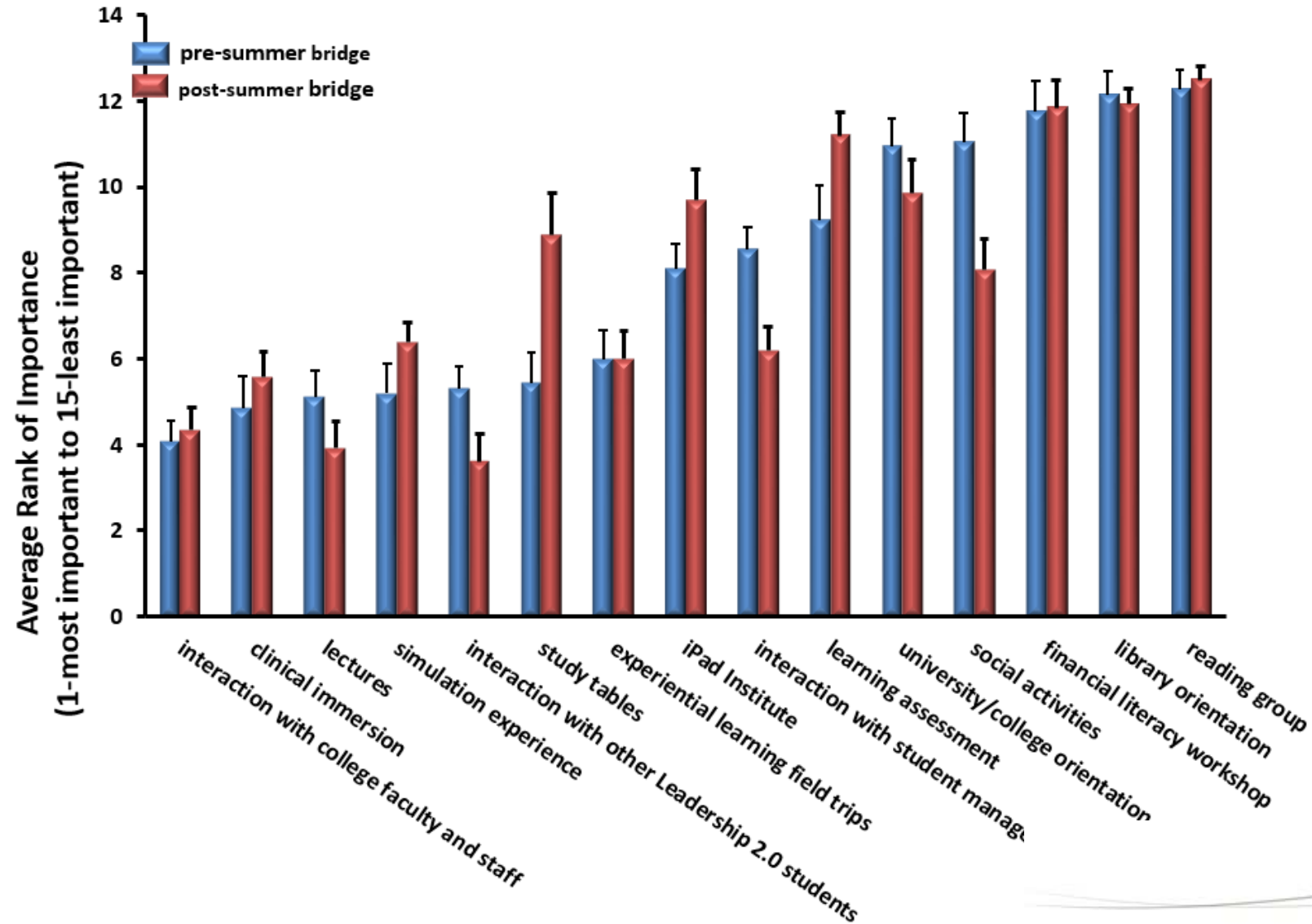
Results



Percentage of Students that Felt Leadership 2.0 Alleviated Concerns to Success in College Related to 7 Different Components (n=26)

Results

Relative Importance of Each Component of the Summer Bridge Residential Program (n=26) * indicates $P < 0.05$



Long-Term Outcomes

Nursing Student Retention Pre- and Post-Implementation of Leadership 2.0

	Pre-Leadership 2.0						Post-Leadership 2.0			
Year Admitted	2010		2011		2012		2013		2014	
Demo-graphic	Non-Hisp. White	URE	Non-Hisp. White	URE	Non-Hisp White	URE	Non-Hisp. White	URE	Non-Hisp. White	URE
Freshman to Soph. Retention	49%	36%	67%	33%	45%	39%	75%	60%	88%	95%
Sophomore to Junior Retention	96%	100%	100%	75%	99%	100%	96%	83%	N/A	N/A
Junior to Senior Retention	98%	100%	99%	100%	100%	100%	N/A	N/A	N/A	N/A

Long-Term Outcomes

Leadership 2.0 Student Retention

Year Admitted	2013			2014		
Demographic	All	Non-Hisp. White	URE	All	Non-Hisp. White	URE
Fr. to So. Retention	91%	85.7%	100%	100%	100%	100%
So. to Jr. Retention	100%	100%	100%	N/A	N/A	N/A
Jr. to Sr. Retention	N/A	N/A	N/A	N/A	N/A	N/A

Long-Term Outcomes

First-Year GPA of Nursing Student Body and Leadership 2.0 Students

Year	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Non-Hispanic White	3.24	3.24	3.33	3.51	3.49	3.45
URE	2.60	3.22	2.92	3.48	3.08	3.37
First-generation	2.86	3.08	3.10	3.30	3.12	3.23
Leadership 2.0 Students					3.34	3.55
UREs not in Leadership 2.0					2.78	3.32

Conclusions

Leadership 2.0: Nursing's Next Generation summer bridge program

- Increases student retention
- Increases first-year GPA

Social supports are deemed highly important equal to academic support

Financial resources are a continuous factor in student concerns



References

1. HealthLandscape, LLC. (2014). Regional healthcare workforce profile.
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<http://quickfacts.census.gov/qfd/states/39/3915000.html>
3. U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. *Sex, race and ethnic diversity of U.S. health occupations (2010-2012)*. Rockville, Maryland; 2014.
4. Pritchard, T. J., Perazzo, J. D., Holt, J. A., Fishback, B. P., McLaughlin, M., Bankston, K. D., & Glazer, G. (2016). Evaluation of a summer bridge: Critical component of the Leadership 2.0 program. *Journal of Nursing Education*, 55(4), 196-202.