Center for Collegiate Mental Health (CCMH)

2009 Pilot Study

EXECUTIVE SUMMARY

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Acknowledgements

The 2009 CCMH Pilot Study was made possible by:

- The collaborative efforts of nearly 140 university and college counseling centers
- Titanium Software
- The Association for University and College Counseling Center Directors (AUCCCD)
- Penn State University's Division of Student Affairs

CCMH Research Team at the Pennsylvania State University

(contributors to this report)

EXECUTIVE DIRECTOR:

Ben Locke, Ph.D.—Assistant Director for Research and Technology, Counseling and Psychological Services

DEPARTMENT OF COUNSELOR EDUCATION, COUNSELING PSYCHOLOGY, AND REHABILITATION SERVICES

Jeffrey Hayes, Ph.D.—Professor of Counseling Psychology

Amy Crane—Doctoral Student in Counseling Psychology

Christina Schendel—Doctoral Student in Counseling Psychology

DEPARTMENT OF PSYCHOLOGY

Louis Castonguay, Ph.D.—Professor of Clinical Psychology

James Boswell—Doctoral Student in Clinical Psychology

Andrew McAleavey—Doctoral Student in Clinical Psychology

Dana Nelson—Doctoral Student in Clinical Psychology

CCMH Advisory Board Members (2009)

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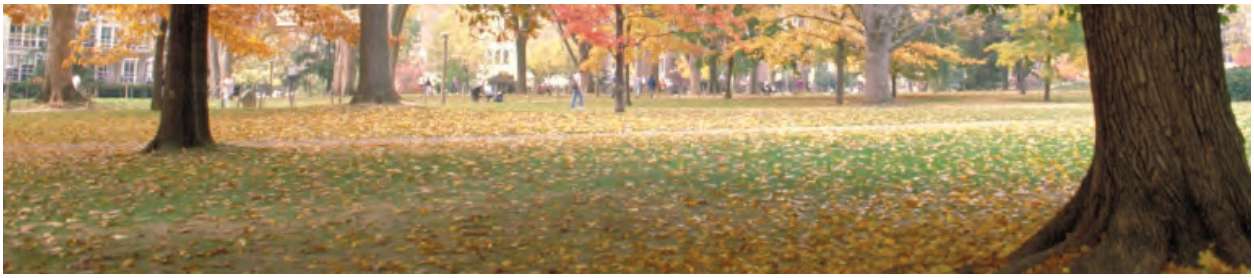

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Introduction

The Center for Collegiate Mental Health (CCMH) represents a collaborative, multi-disciplinary effort combining the expertise of mental health treatment providers, psychological researchers, industry, and information sciences and technology. The products of this effort can best be described as "mental health informatics" – a system capable of producing a constant flow of high quality, anonymous, aggregate data readily available for multiple purposes.

The following report outlines a preliminary effort to describe the range of information on college student mental health that could be accessed via a comprehensive long-term strategy. As a result of nearly five years of unprecedented collaboration, a pilot test of the CCMH infrastructure produced data on over 28,000 students receiving mental health services at 66 institutions during the fall semester of 2008. Though substantial, this accomplishment represents a fraction of the theoretical capacity of a mental health informatics infrastructure. Because it is not possible to discuss the entire range of findings in this summary, we have instead chosen to offer an overview of salient findings observable in the data. Whereas many of the findings described here will be submitted to peer-reviewed journals, we trust that these preliminary, informal findings will serve to educate, inspire, and enhance efforts to understand and improve college student mental health.

A highly complex and multi-faceted phenomenon, the mental health of today's college students impacts the educational environment, including an individual student's ability to cope with stress, classroom behavior, residence life, student activities, and critical incidents that impact an entire college or university community. Moreover, it is commonly believed that the prevalence and severity of college student mental health concerns are increasing – and that such changes pose serious challenges for the higher education community.

Given such a challenging set of issues, it has been troubling to consider the lack of a mechanism to monitor mental health trends or conduct large scale research to provide more comprehensive answers. The Center for Collegiate Mental Health (CCMH) was created precisely to address this need, and has accomplished the following during its development:

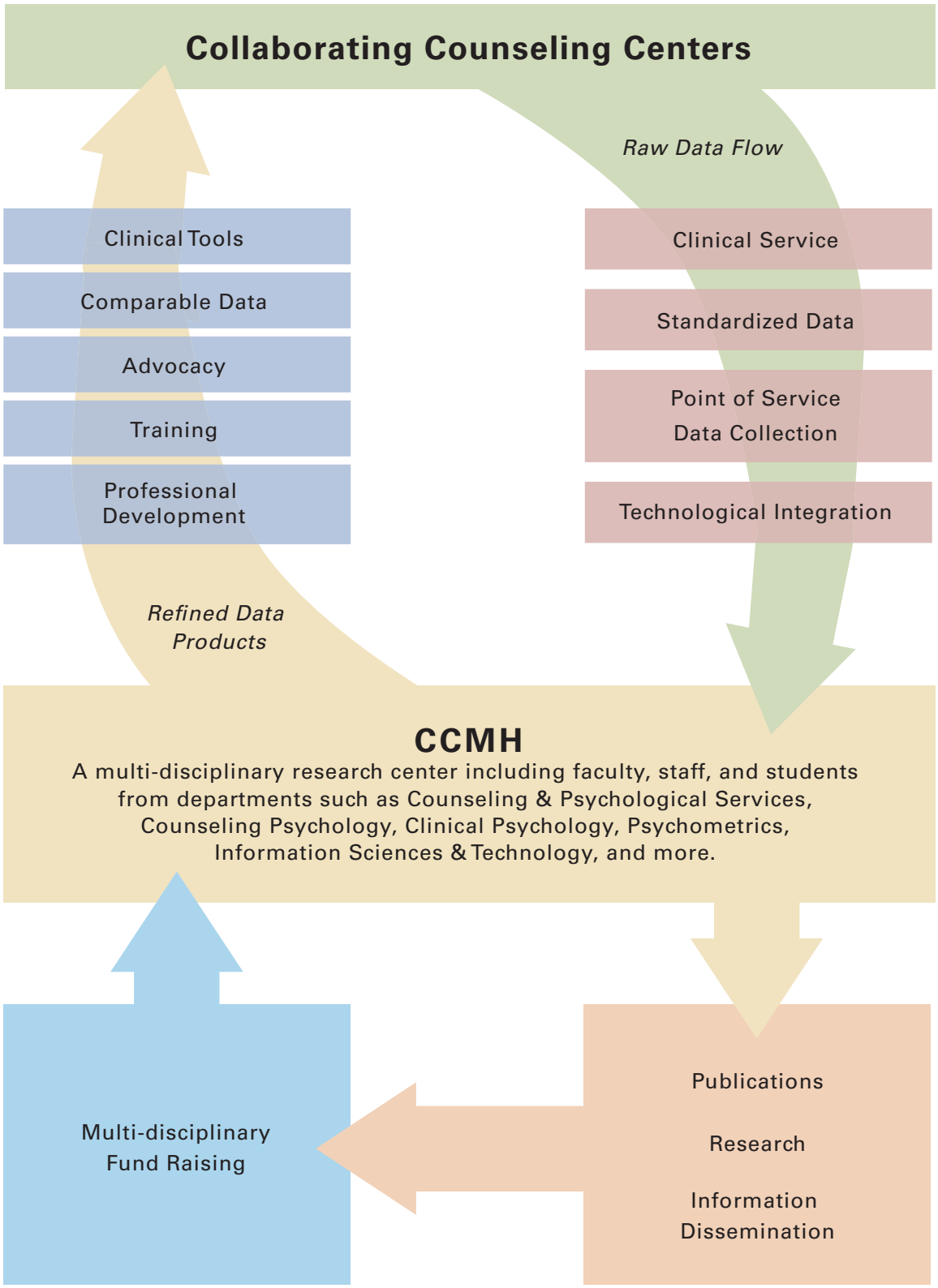
1. **Collaborative Data Standards** (2006)—More than 100 counseling centers participated in creating the first Standardized Data Set (SDS), a set of standardized, yet flexible, data points which allow for "apples to apples" data comparison among counseling centers.

2. **Technical Integration** (2008)—Partnering with Titanium Software (the largest provider of electronic scheduling and health records software for counseling centers) allowed for the integration of the SDS into the very software used for day-to-day business by counseling centers. This makes it possible for counseling centers to gather high quality, standardized data as part of routine clinical service.

3. **Data Flow** (2009)—By again working with Titanium Software, standardized data was pooled at the national level with minimal effort from participating centers. The resulting aggregate data is de-identified, anonymous, of high quality, and ready for analysis.

4. **Information Dissemination** (2009)—As a result of a multi-disciplinary team of faculty and graduate students, the raw data is being converted into a variety of useful forms including: this summary of new findings; peer reviewed studies and publications; the creation and distribution of improved clinical assessment tools; and a prototype of a web-based interface for enabling counseling centers to dynamically compare their data with other participating colleges and universities.

CCMH Research Model



Key Concepts

Because the work and products of CCMH are unique in the field of mental health research, the following key concepts are introduced for your review:

SCOPE OF THE DATA

- Sixty-six out of 137 counseling centers participating in CCMH were able to contribute de-identified data gathered during routine clinical service in the fall of 2008
- This data set describes the population (not a sample) of students receiving mental health services at 66 counseling centers.
- The data does not describe the student body of participating institutions.

DATA GLOSSARY

Standardized Data Set (SDS) – The Standardized Data Set (SDS) was developed with input from more than 100 counseling centers and represents a standardized set of questions typically asked of students seeking services. Because not all centers ask all questions, the total number of responses will vary by question.

Counseling Center Assessment of Psychological Symptoms (CCAPS) – Originally developed by the counseling center at the University of Michigan, the CCAPS is a 70-item psychometric instrument with nine subscales, designed to objectively measure specific elements of mental health in the college student population. Students are asked to rate each item on a 5 point scale where *0 = Not at all like me* and *4 = Extremely like me.* Findings discussed in this report may refer to specific CCAPS items or an entire subscale. The original nine subscales are:

1. Depression
2. Generalized Anxiety
3. Social Anxiety
4. Eating Concerns
5. Substance Use
6. Family of Origin Issues
7. Academic Distress
8. Hostility (frustration and anger)
9. Spirituality

GENERALIZABILITY

The data from the CCMH 2009 Pilot Study is inclusive of data from the complete population of students seen for mental health services at the 66 participating centers during the fall of 2008. This sample is both diverse and inclusive when compared to any other study on college student mental health. A critical question to consider when reading this report is:

"Can data and conclusions drawn from such a large and diverse population be generalized to other centers and individual clients?"

Generally speaking, yes. Institutional characteristics accounted for less than 5.3% of the variance across the nine CCAPS subscales. The largest institutional impact was on the Academic Distress CCAPS subscale (5.3%), the next largest was Depression (4.8%), and the remaining subscales ranged between 1.5% and 4.2%. Even the subscale of Substance Use, which readers might believe should vary by institution, was only impacted 0.4% by institutional characteristics across the entire sample. Thus, counseling centers tend to see the same types of clients and problems regardless of their parent institution. Though each counseling center will have unique profiles, trends, and base rates, the systematic variation among schools appears to be quite small when compared to the extensive variation among clients at an individual counseling center. It is important to understand that the latter does not negate the fact that institutions vary in important ways which significantly impact students, and it is also possible that future analyses may reveal important relationships between mental health and institutional characteristics. However, the overall results of this data suggest that, among students seeking mental health services, institutional characteristics appear to play a less important role when compared to other variables.

The above has several important implications to keep in mind while reviewing this report:

- Results from CCMH data should reliably generalize to other institutions. This will become increasingly the case as more centers are able to contribute to the data pool.
- The norms derived from CCMH data (i.e., CCAPS subscale norms) should be relevant for individual clients at all institutions because the norms are tied to the variability between clients – not institutions.
- Analyses in this report are informal and "big picture" in nature. It will take time and effort to unravel the nuanced and complex relationships among the data. The latter will remain the domain of focus for presentations and publications in the future.

Participating Institutions

Counseling centers at the following institutions are registered with CCMH. Those in bold contributed data.

1. Adelphi University
2. **Appalachian State University**
3. Arizona State University
4. **Auburn University**
5. **Barry University**
6. Bucknell University
7. Butler University
8. California Lutheran University
9. **California State Polytechnic University, Pomona**
10. **California State University, Sacramento**
11. **Clayton State University**
12. Cleveland State University
13. Colgate University
14. College of Southern Nevada
15. College of William & Mary
16. **Colorado State University**
17. **Columbia College Chicago**
18. Cornell University
19. Duke University
20. **Eastern Michigan University**
21. Eastfield College
22. **Emory University**
23. **Fairfield University**
24. Ferris State University
25. **Florida Gulf Coast University**
26. Florida International University
27. **Franklin & Marshall College**
28. **George Mason University**
29. Georgia College and State University
30. **Georgia State University**
31. **Grand Valley State University**
32. Hobart and William Smith Colleges
33. **Idaho State University**
34. **Illinois State University**
35. Illinois Wesleyan University
36. Indiana University
37. **Iowa State University**
38. Johns Hopkins University
39. **Johnson & Wales University**
40. **Lafayette College**
41. **Lehigh University**
42. **Lehman College**
43. **Loyola Marymount University**
44. Loyola University New Orleans
45. Marquette University
46. **Michigan State University**
47. Middle Tennessee State University
48. Molloy College
49. **New College of Florida**
50. **North Dakota State University**
51. Northeastern Illinois University
52. Northern Illinois University
53. Northwestern University
54. Ohio State University

55. Ohio University
56. Old Dominion University
57. Pace University
58. Penn State University
59. Pepperdine University
60. Polytechnic Institute of New York University
61. Purdue University
62. Ramapo College of New Jersey
63. Rochester Institute of Technology
64. Saint Josephs University
65. Saint Mary's College of California
66. Salisbury University
67. Sam Houston State University
68. San Jose State University
69. Santa Clara University
70. Southern Illinois University
71. Southern Polytechnic State University
72. St. Cloud State University
73. St. Mary's College of Maryland
74. Suffolk University
75. SUNY Oswego
76. Susquehanna University
77. Syracuse University
78. Tarleton State University
79. Texas A&M University
80. Texas A&M University-Corpus Christi
81. Texas State University
82. Texas Tech University
83. The Catholic University of America
84. Truman State University
85. University at Buffalo
86. University of Akron
87. University of Alabama
88. University of Arkansas
89. University of British Columbia
90. University of Central Florida
91. University of Central Missouri
92. University of Central Oklahoma
93. University of Delaware
94. University of Florida
95. University of Houston
96. University of Houston-Clear Lake
97. University of Illinois at Chicago
98. University of Illinois at Urbana Champaign
99. University of Iowa
100. University of Kentucky
101. University of Memphis
102. University of Michigan
103. University of Missouri
104. University of Missouri , Kansas City
105. University of North Carolina at Charlotte
106. University of North Carolina at Pembroke
107. University of North Florida
108. University of North Texas
109. University of Northern Iowa
110. University of Notre Dame
111. University of South Florida , St. Petersburg
112. University of Tennessee Knoxville
113. University Of Texas at Arlington
114. University of Texas at Austin
115. University of Texas at San Antonio
116. University of the Sciences in Philadelphia
117. University of Utah
118. University of Vermont
119. University of Washington
120. University of Wisconsin - La Crosse
121. University of Wisconsin-Stout
122. Valparaiso University
123. Villanova University
124. Virginia Commonwealth University
125. Virginia Polytechnic Institute and State University (VA Tech)
126. Washington State University
127. Wayne State University
128. Weber State University
129. West Chester University
130. West Texas A&M University
131. West Virginia University
132. Western Carolina University
133. Western Kentucky University
134. Western Kentucky University
135. Western Michigan University
136. Western Washington University
137. Wright State University

Institutional Characteristics

Sixty-six of 137 registered counseling centers contributed data for the 2009 Pilot Study. Demographic characteristics of the 66 participating institutions are as follows:

Institutional Characteristic	Frequency
Campus Size	
Under 1,500	1
1,501 - 2,500	4
2,501 - 5,000	7
5,001 - 7,500	5
7,501 - 10,000	7
10,001 - 15,000	7
15,001 - 20,000	6
20,001 - 25,000	9
25,001 - 30,000	11
30,001 - 35,000	4
35,001 - 40,000	1
40,001 - 50,000	4
50,001 and over	0
Location of Campus	
Northeast (CT, ME, MA, NH, NJ, NY, PA, RI, VT)	13
Midwest (IL, IN, IA, KS, MI, MN, MO, NE, ND, OH, SD, WI)	15
South (AL, AR, DE, DC, FL, GA, KY, LA, MD, MI, NC, OK, SC, TN, TX, VA, WV)	26
West (AK, AZ, CA, CO, HI, ID, MT, NV, NM, OR, UT, WA, WY)	12
Athletic Division	
None	4
Division I	41
Division II	9
Division III	12
Institution Type	
Private	17
Public	47
Combined	2

Student Characteristics

The 2009 CCMH Pilot Study is based on anonymous, aggregate data from over 28,000 clients drawn from 66 institutions with the following demographic characteristics:

Age
Minimum = 18
Maximum = 80
Mean = 22.7
Standard Deviation = 5.38

Gender	Frequency	Valid %
Male	9141	35.4
Female	16615	64.3
Transgender	41	.2
Prefer not to answer	46	.2
Total	25843	100.0

Race/Ethnicity	Frequency	Valid %
African American / Black	1911	7.7
American Indian / Alaskan	109	.4
Arab American	113	.5
Asian American / Asian	1558	6.2
East Indian	156	.6
White	17569	70.4
Hispanic / Latino/a	1444	5.8
Native Hawaiian or Pacific Islander	77	.3
Multi-racial	789	3.2
Prefer not to answer	607	2.4
Other	623	2.5
Total	24956	100.0

Country of Origin
170+ countries were represented
More than 40 countries had 20 students or more

Sexual Orientation	Frequency	Valid %
Heterosexual	19546	89.2
Gay	457	2.1
Lesbian	271	1.2
Bisexual	638	2.9
Questioning	281	1.3
Prefer not to answer	718	3.3
Total	21911	100.0

International Student Status	Frequency	Valid %
No	21675	95.9
Yes	929	4.1
Total	22604	100.0

Relationship Status	Frequency	Valid %
Single	14941	61.6
Serious dating or committed relationship	7228	29.8
Civil union or domestic partnership	138	.6
Married	1475	6.1
Divorced	250	1.0
Separated	192	.8
Widowed	21	.1
Total	24245	100.0

Student Characteristics *continued*

Academic Standing	Frequency	Valid %
Freshman / first year	4597	18.1
Sophomore	4927	19.4
Junior	5732	22.6
Senior	5728	22.6
Graduate or Professional Degree Student	3744	14.7
Non-student	169	.7
High school student taking classes	3	.0
Non-degree student	64	.3
Faculty or staff	76	.3
Other	346	1.4
Total	25386	100.0

Housing	Frequency	Valid %
On campus residence hall/apartment	7105	32.7
On/off campus fraternity/sorority house	576	2.7
On/off campus cooperative house	190	.9
Off campus apartment/ house	13026	60.0
Other	815	3.8
Total	21712	100.0

Living With	Frequency	Valid %
Alone	2809	13.7
Spouse, partner, or significant other	2092	10.3
Roommates	11167	54.1
Children	602	3.0
Parent(s) or guardian(s)	1713	8.5
Family other	705	3.5
Other	247	6.9

Transfer Student Status	Frequency	Valid %
Non-transfer	14813	79.2
Transfer	3888	20.8
Total	18701	100.0

Athlete Status (competes with other colleges/universities)	Frequency	Valid %
No	14784	92.7
Athlete	1171	7.3
Total	15955	100.0

First-Generation in College	Frequency	Valid %
No	13586	76.8
Yes	4093	23.2
Total	17679	100.0

Financial Situation Now	Frequency	Valid %
Always stressful	2600	17.2
Often stressful	3372	22.3
Sometimes stressful	5274	34.9
Rarely stressful	2871	19.0
Never stressful	979	6.5
Total	15096	100.0

Financial Situation Growing Up	Frequency	Valid %
Always stressful	635	8.7
Often stressful	994	13.6
Sometimes stressful	1794	24.5
Rarely stressful	2154	29.4
Never stressful	1743	23.8
Total	7320	100.0

Prevalence and Severity

It is widely believed that the prevalence and severity of college student mental health concerns has been on the rise since the establishment of college and university counseling centers in the 1940's. This increase has been particularly noteworthy in the last 10-20 years, and there is active debate about a range of potential reasons for this increase. Because CCMH is designed to continuously monitor the population of students seeking services at each participating counseling center, it offers the promise of reliably observing changes in both prevalence and severity over time. For this year's pilot study, the following overview describes the profile of students who sought mental health services during the fall of 2008:

Rates of Prior Mental Health Treatment			
Question	**Answer**	**Frequency**	**Valid %**
Prior counseling experience	Never	11841	49
	Prior to College	4619	19
	After Starting College	4303	18
	Both	3538	15
Prior use of psychiatric medications	Never	15805	66
	Prior to College	2301	10
	After Starting College	3324	14
	Both	2659	11
Prior psychiatric hospitalization	Never	21753	91
	Prior to College	1102	5
	After Starting College	719	3
	Both	223	1
Prior drug or alcohol treatment	Never	21922	95
	Prior to College	458	2
	After Starting College	515	2
	Both	145	1
Rates of Concerning Behaviors			
Non-suicidal self-injury	Never	18607	79
	Prior to College	2612	11
	After Starting College	785	3
	Both	1631	7
Seriously considered suicide	Never	18044	75
	Prior to College	2694	11
	After Starting College	1323	6
	Both	1907	8
Prior suicide attempt	Never	21978	92
	Prior to College	1288	5
	After Starting College	491	2
	Both	240	1
Seriously considered harming another person	Never	21676	92
	Prior to College	755	3
	After Starting College	352	1
	Both	835	4
Intentionally harmed another person	Never	22389	95
	Prior to College	744	3
	After Starting College	207	1
	Both	289	1

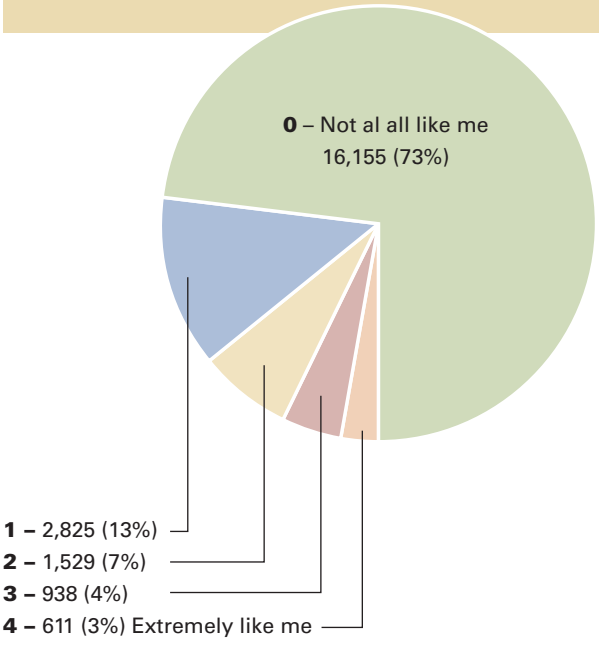
Campus Violence

Campus violence is one of the most significant problems currently facing colleges and universities. While the vast majority of college students are not at risk of harming themselves or someone else, and those with mental illness are far more likely to be a victim than a perpetrator of violence, institutions of higher education are being forced to grapple with this difficult issue.

To explore how the CCMH pilot data might be helpful, we examined data related to both the prevalence and predictors of one CCAPS item which asks the degree to which students agreed with the statement, "I am afraid I may lose control and act violently." While students' fears of acting violently are not equivalent to actual violent behavior of any specific type or severity, these fears could be indicators of risk. Consequently, identifying and intervening with students who have such fears (and associated characteristics) may represent a helpful step in preventing such behavior from occurring.

Students were considered to have high fears of losing control and acting violently if they endorsed that item with a 3 or 4 whereas students were considered to have low fears of losing control and acting violently if they endorsed that item with a 0, 1, or 2. Just over 22,000 students responded to this question as follows:

"I am afraid I may lose control and act violently."



To further understand the nature of students who strongly endorse this item, we used a series of rational empirical steps to identify a large group of other items which could be considered useful predictors of this fear. The results indicated that students with strong fears of losing control and acting violently (3 or 4) were most likely to be:

- Male
- To have previously harmed another person
- To strongly endorse the following CCAPS items:
  - Fear of having a panic attack in public
  - Having unwanted thoughts that can't be controlled
  - Experiencing nightmares or flashbacks
  - Feeling irritable
  - Suicidal ideation
  - Low academic motivation
  - Frequently getting into arguments

These results offer a number of important implications and directions for future research. On one hand, the results are reassuring because the overwhelming majority of students seen in counseling centers have little or no fear of losing control and acting violently. On the other hand, 7% of counseling center clients reporting strong fears of losing control and acting violently is reason enough for concern, even though we do not know the nature or extent of the behavior feared by the students. While these preliminary results should not be used for profiling or screening purposes, they do highlight a set of characteristics which are associated with the fear of losing control and acting violently and could in turn lead to an improved understanding of how to identify and intervene with those who may be at risk of violent behavior.

Psychotherapy Outcome Research

The primary purpose of routine outcome assessment is to investigate the effects of treatments, including whether or not interventions provided by mental health professionals are promoting positive change. The advantage of a measure such as the CCAPS is that it allows one to assess change across a variety of mental health domains simultaneously. For this report, we chose to focus on depression because it is the most frequent problem experienced by students seeking psychological and psychiatric treatment. It is also a personal affliction with enormous societal costs. The current prevalence estimates of depression indicate a marked increase compared to several decades ago, and the average age of onset continues to decrease, making this a particularly salient problem area for college student populations.

The data collected in the 2009 CCMH Pilot Study included CCAPS data on over 1500 students prior to and during or after their treatment. Results from the analysis of this pre-post data indicates that, with an average of approximately 6 weeks between CCAPS administrations, students treated in participating counseling centers exhibited a statistically significant decrease in depressive symptoms. Even more striking, students who initially presented with higher levels of self-reported depressive symptoms, relative to the rest of the sample, exhibited an even more pronounced decrease in their depressive symptoms within the same period of time.

We also chose to investigate one item on the CCAPS that assesses a particularly concerning symptom associated with depression: suicidal ideation. Although it is a rare event, suicide is the most severe of negative mental health outcomes; it is the second leading cause of death among 20–24 year-olds, and the lifetime suicide rate peaks among young adults. Again, with an average time between assessments of just 6 weeks, the data indicate that the treatment received in counseling centers leads to a statistically significant reduction in suicidal ideation. Similar to our findings on depression, students who initially presented with a more significant history of suicidal ideation and, thus are at higher risk for a future suicide attempt, exhibited an even more pronounced decrease in suicidal ideation after treatment.

These findings for depression and suicide indicate that 1) the CCAPS is sensitive to assessing change in symptoms of depression and suicide during treatment and 2) the services provided by college student mental health centers have a beneficial impact not only on the most commonly treated psychological disorder, but also on the most disastrous of mental health outcomes. Moreover, such findings lend support to the role that college counseling centers play in maintaining the health and safety of the student body.

Investigating change over time will play an important role in tracking and understanding the effectiveness of counseling and psychological services in higher education, with direct implications for resource allocation. For example, counseling centers have historically referred students with more severe depression and greater suicide risk to other service providers, but college counseling centers appear to be capable of helping these individuals and doing so within a short-term model given appropriate space and funding.

Mental Health and Academic Success

While it is understood that a student's ability to succeed academically is related to their mental health, we examined the CCMH pilot data to determine if this relationship could be documented in a large, representative sample. In addition, this preliminary analysis offered an important opportunity to examine the validity of academic variables such as self-reported GPA and academic distress.

The Academic Distress subscale on the CCAPS measures academic-related factors, such as enjoying classes, level of motivation, being able to concentrate, keeping up with school work, and academic confidence. Data revealed that scores on the Academic Distress subscale were related to all indices of mental health on the CCAPS, but was most strongly related to the subscales of Depression and Generalized Anxiety. In other words, students who struggled with symptoms related to depression and anxiety also tended to report struggling with academics as measured by the CCAPS. The validity of the Academic Distress subscale is further supported by our finding that that higher levels of Academic Distress are related to lower self-reported GPA scores.

Further evidence of the relationship between mental health and students' academic performance was found in the relationship between GPA and suicidality where each increase in the severity of suicide-related history resulted in a statistically significant drop in GPA:

Level	Self-reported GPA (0-4)
Never considered suicide	3.12
Seriously considered suicide	3.04
Past suicide attempt	2.98

This same pattern held true when comparing students' scores on the Academic Distress subscale (scores range from 0-4) of the CCAPS such that each increase in the severity of suicide-related history resulted in a correspondingly significant increase in Academic Distress:

Level	Academic Distress (Scale of 0-4)
Never considered suicide	1.78
Seriously considered suicide	2.33
Past suicide attempt	2.35

Student's academic distress was found to be related to a variety of other aspects of mental health including:

- Students who reported experiencing **unwanted sexual contact** scored significantly higher on the Academic Distress subscale of the CCAPS (2.10) than students who did not (1.85).
- **International students** reported experiencing greater academic distress than non-international students (2.03 vs. 1.89), even though self-reported GPA's tended to be higher for international students (3.29) than non-international students (3.12).
- **Transfer students** tend to experience greater academic distress (2.04) than non-transfer students (1.87).
- Higher levels of **social support** is significantly related to lower levels of Academic Distress. Students who strongly agree with the statement, "I get the emotional help and support I need from my social network" reported lower levels of Academic Distress (1.49) than those who strongly disagree (2.17) with the same statement.

Debate exists regarding the role and importance of student services and activities (i.e., non-classroom activities) in higher education including whether additional resources should be allocated when student services report being overburdened. These preliminary results clearly suggest that the goal of academic success is intimately tied to student's mental health and related variables. This, in turn, lends credence to the conclusion that, if institutions of higher education truly want students to succeed academically, they must simultaneously invest in a broad range of student services and activities which promote mental health.

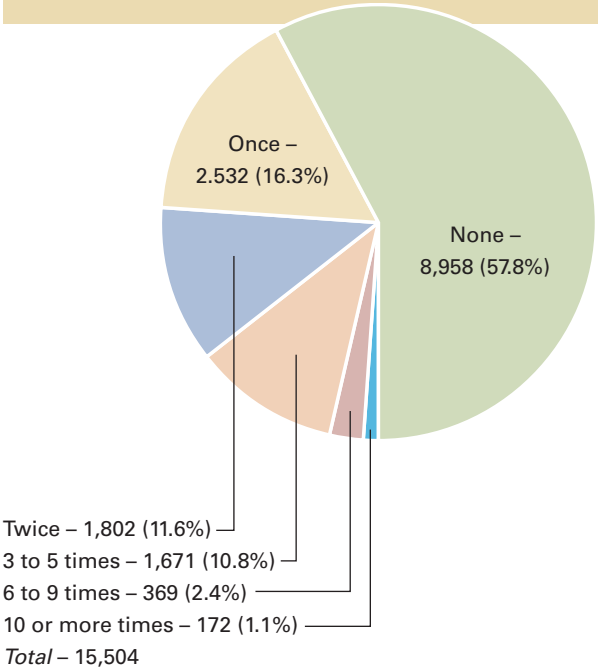
Alcohol and Substance Abuse

Binge-drinking is a serious health concern within the higher education community. The literature indicates that a significant percentage of college students abuse alcohol and that such abuse is associated with a variety of negative mental health outcomes such as increased risk of suicide, depression, violent behaviors, eating-disorders, and poor academic performance. We examined the relationship between alcohol use and mental health symptoms based on more than 15,000 students who answered questions about binge drinking.

The CCMH pilot data revealed the following rates of binge drinking among students seeking mental health treatment. Binge drinking rates did not differ significantly based on race or academic standing.

Think back over the last two weeks. How many times have you had: five or more drinks* in a row (for males) OR four or more drinks* in a row (for females)?

(A drink is a bottle of beer, a glass of wine, a wine cooler, a shot glass of liquor, or a mixed drink.)*



Harvard's College Alcohol Study defines binge drinking as having five or more drinks in a row for men and four or more drinks in a row for women.

The data revealed a variety of additional interesting and clinically important findings:

- 16% of students indicated that **other people expressed concern** about their alcohol or drug use. This was true for 41% of students reporting binge drinking at least three times in the last two weeks.
- Just 5% of students reported **prior treatment for alcohol or drug use**, but 26% of those with prior drug or alcohol treatment reported some level of binge drinking in the previous two weeks.
- Only 6% of students scored a 3 or above on the CCAPS Substance Abuse subscale, but these students had **significantly elevated levels of depression** and 32% engaged in binge drinking two or more times in the past two weeks. This was especially true for male students.
- Almost 50% of students who reported 10 or more binge drinking episodes in the previous two weeks also indicated that they have **seriously considered suicide**.
- Binge drinking has a consistently negative relationship with **academic performance** as measured by their self-reported GPA and Academic Distress scores:

Binge drinking	GPA	Academic Subscale
None	3.19	1.84
Once	3.11	1.95
Twice	3.06	1.97
3 - 5x	3.04	2.07
6 - 9	2.98	2.17
10+	2.95	2.36

That there exists important relationships between the abuse of alcohol, mental health symptoms, and academic performance is quite clear – and the CCMH data offers an important opportunity to examine the nature of these relationships in detail. However, these findings also offer immediate clinical utility for therapists who can use these findings to confront denial, highlight consequences, and offer a critically important peer comparison to increase awareness and encourage behavioral change.

Eating Disorders and Body Image Concerns

Eating and body-image concerns are notoriously prevalent in the college population. However, because shame is often associated with such difficulties, and individuals with eating-disorders may not see their behavior as problematic, it is commonly believed that eating disorders often go underreported.

Body image and eating related concerns are important not only in and of themselves, but also because they are often associated with other serious difficulties. These relationships are confirmed in the current data which shows moderate to high correlations between eating concerns and the following other problem areas:

- Depression
- Generalized Anxiety
- Hostility (frustration and anger)
- Social Anxiety
- Family of Origin Issues

EATING DISORDERS AND DIVERSITY

Some research suggests that when an individual does not fit the stereotype of a person who would be expected to have a particular disorder, counselors may be less likely to ask important questions and could miss significant problem areas. Eating disorders – and body image and eating related concerns more generally – are typically thought to be associated with young, heterosexual, White women. As past research has suggested, counselors may therefore be less likely to detect such difficulties in individuals who do not fit this stereotype.

While it's generally true that women suffer from body dissatisfaction and eating related concerns at higher rates than men, data collected by CCMH indicates that about 4% of male students report moderate to high levels of such difficulties, with gay male students (16%) reporting these concerns at a rate that is comparable to female students (15%). On the contrary, heterosexual female students and lesbian/bisexual students showed little difference in their rates of eating and body image concerns.

Likewise, ethnic minority women report moderate to high levels of eating and body image concerns at rates similar to their White peers.

Rates of Moderate to High Eating and Body Image Concerns for Women by Race	Frequency
White	16.0%
Asian-American	15.5%
Hispanic/Latina	12.5%
African American	11.5%

The CCMH data reveal that while some eating and body image concerns are fairly common at low severity levels, others are quite rare.

- About 37% of students (44% of women) give some endorsement to the statement, "**The less I eat, the better I feel about myself**".
  - —However, just 4% of students (9% of women) strongly endorse this statement.
- 15% of students seeking counseling (15% of women) report **moderate to high levels of eating and body image concerns** overall.
  - —However, less than 1% of students (.5% of women) report **purging to control their weight**.

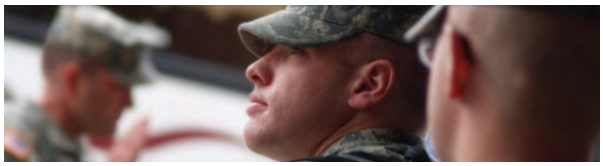
These preliminary results highlight several important implications. First, despite some variation between groups it is critical for counselors to evaluate eating and body-image issues consistently rather than making assumptions based on stereotypes. Furthermore, although some types of eating disorder symptoms may be quite common in the college population, other symptoms (such as any form of purging or significant endorsement of restrictive eating) are strong signs of much more serious and atypical distress. When taken together, these types of findings should help counselors to better evaluate clients but can also be used to help clients to recognize the severity and importance of less common symptoms when compared to their peers.

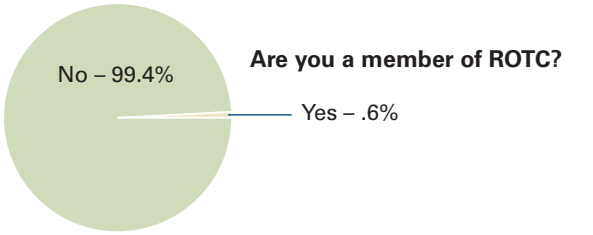
Military Experience

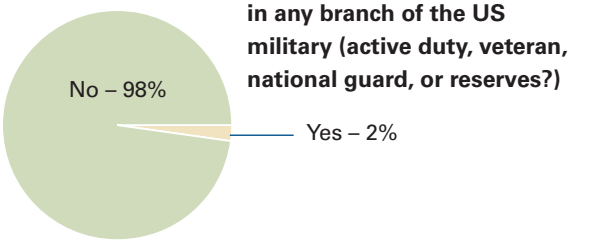
As increasing numbers of veterans return to higher education following active military duty, university counseling centers need to be in a position to both track the demand and accommodate the special needs of this population. All military personnel, regardless of whether they experienced combat, are likely to experience a substantial transition into college life.

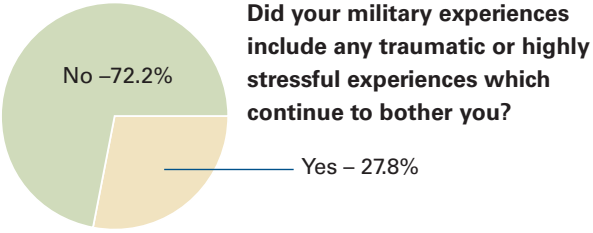
The first finding in the CCMH data is the apparent under-representation of those with a military background within the population of counseling center clients studied. Out of more than 8,500 students who responded to an item about ROTC membership, just 54 (.6%) reported being ROTC members. Further, out of more than 23,000 students asked about military history, just 453 (2%) indicated a history of enlisted military experience. It seems likely that a number of different factors (including culture and career concerns as well as alternate treatment options) may contribute to the trend of those with a military background being less likely to seek treatment at counseling centers. On the other hand, nearly 30% of those reporting a military history also reported the experience of a military-based traumatic event which was associated with ongoing chronic symptoms.

When the three groups of (1) non-military, (2) military personnel without trauma, and (3) military personnel with trauma were compared side by side, students reporting military experience with a traumatic event had significantly higher rates on the CCAPS subscales of Generalized Anxiety, Hostility (frustration and anger), and Family of Origin Issues than the other groups. In addition, the following chart illustrates a pattern of notable similarities and differences among the three groups.



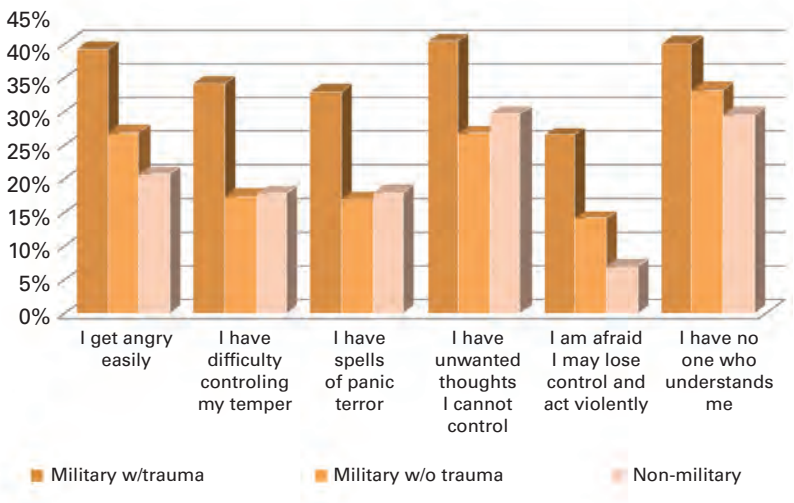






Similarities and Differences

The percentage of students who strongly endorsed (with a 3 or 4) specific CCAPS items.



These findings carry important implications for counseling centers which are likely to see increasing number of students with both military backgrounds and related traumatic experiences. In particular, it is worth noting that students with military backgrounds are less likely to avail themselves of mental health services but when they do seek treatment, it is critical for the mental health professional to attend to the possibility of symptoms related to military-based traumatic experiences. Given the number of military service men and women who will be enrolling in college during the coming years, the need for systematically tracking these trends is compelling.

Trauma

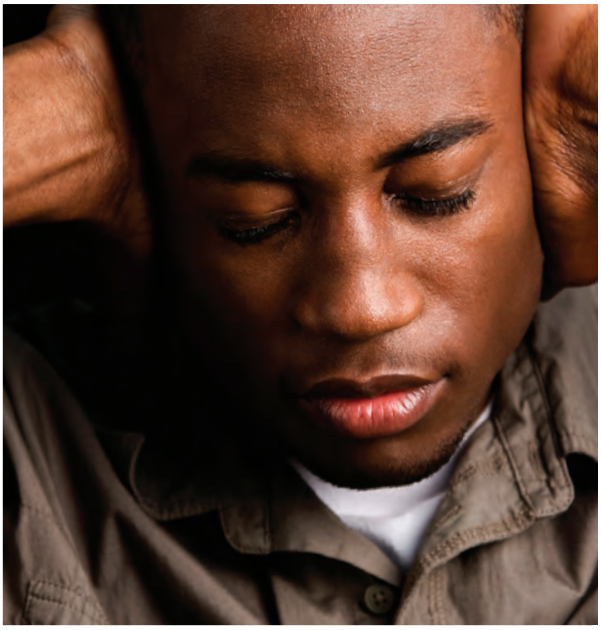
Experiencing a traumatic event can seriously impact a student's mental health as well as his or her overall well-being and ability to succeed in the college environment.

The CCMH data indicate that about 31% of students seeking services from college counseling centers report having experienced a traumatic event either before or since coming to college (with women reporting slightly higher rates than men and sexual minorities reporting slightly higher rates than heterosexuals). About 29% of those who have experienced a traumatic event also report that the trauma caused them to experience intense fear, helplessness, or horror – experiences which are known risk factors for the development of Post-Traumatic Stress Disorder (PTSD). Furthermore, about 45% of students report sometimes experiencing nightmares and flashbacks – possible symptoms of PTSD – with 9% endorsing such symptoms at the highest level.

Research on trauma and PTSD suggests that individuals who have had traumatic experiences are often at higher risk for other types of problems as well, such as drug and alcohol abuse, self-harming behaviors, and suicidality and these findings are confirmed within the CCMH data. Our results indicate that, when compared to students without a trauma experience, students who have experienced a trauma (and associated intense fear, helplessness, or horror) were significantly more likely to also have problems with:

- Substance Use
- History of self-harming behaviors
- Suicidal thoughts
- Past suicide attempts
- Thoughts of harming others
- Generalized Anxiety
- Depression
- Hostility (frustration and anger)
- Academic Distress

Traumatic experiences can vary widely – from a physical assault by another person to a natural disaster such as a hurricane or earthquake. Some research suggests that interpersonal traumas, such as rape or sexual assault, are more likely to lead to PTSD and other mental health difficulties than non-interpersonal traumas. Given the frequencies of sexual assault on many college campuses, this may be an especially important risk factor for counselors to be aware of. The CCMH data indicate that about 10% of men, 28% of women, and 30% of transgendered individuals report having had an unwanted sexual experience either before or since coming to college. Gay men and lesbians were more than twice as likely as



their heterosexual peers to have had unwanted sexual experiences. Although many centers did not ask specifically about sexual assault or childhood sexual abuse, individuals reporting these experiences also reported significantly higher levels of self-harming behavior, suicidal thoughts, and were more likely to have made a previous suicide attempt than both students who had not experienced trauma at all and those who experienced non-sexual traumas.

Some research has suggested that individuals are more likely to report difficult experiences on a written or computerized self-report measure like the CCAPS than they are to report them verbally. Therefore, the CCAPS may be especially helpful in alerting counselors to a student's trauma history and helping them recognize the student's risk for other serious mental health problems like suicide and self-harm.

These preliminary results make it clear that traumatic experiences contribute to a wide variety of serious mental health problems, and counselors who are seeing students with a trauma history should be especially aware of their increased risk for these difficulties. Because the experience of trauma can have such a pervasive impact on mental health, it represents a particularly important topic for future research.

Religion and Spirituality

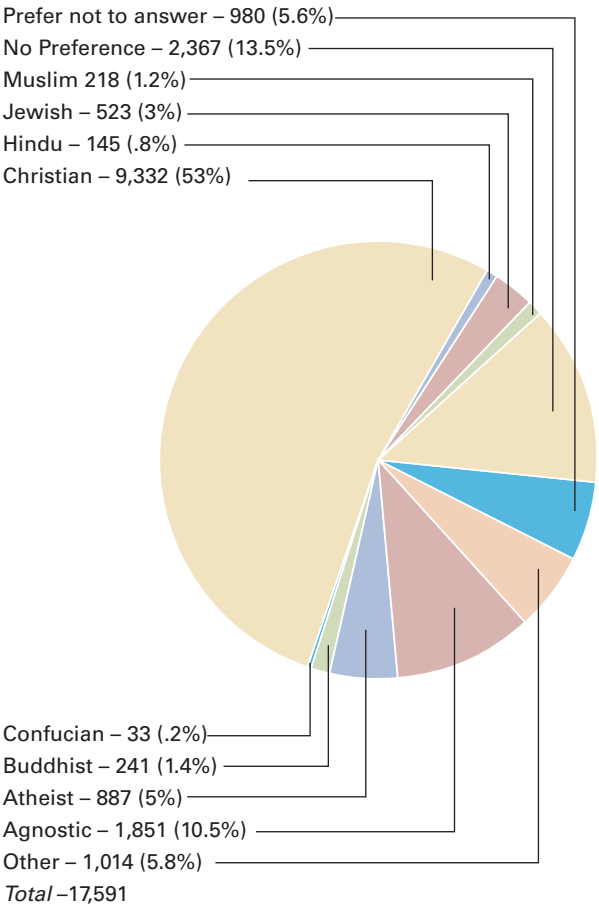
Religion and spirituality have long been considered an integral part of college student identity development by clinicians and higher education professionals who are interested in the multicultural aspects of students. Empirical studies have shown that, not only do religion and spirituality influence attitudes and behaviors, but they are also often associated with positive mental health outcomes within the college population.

According to the CCMH data, religion and spirituality appear to play an important role in the lives of college students and may act as important sources of coping or resilience:

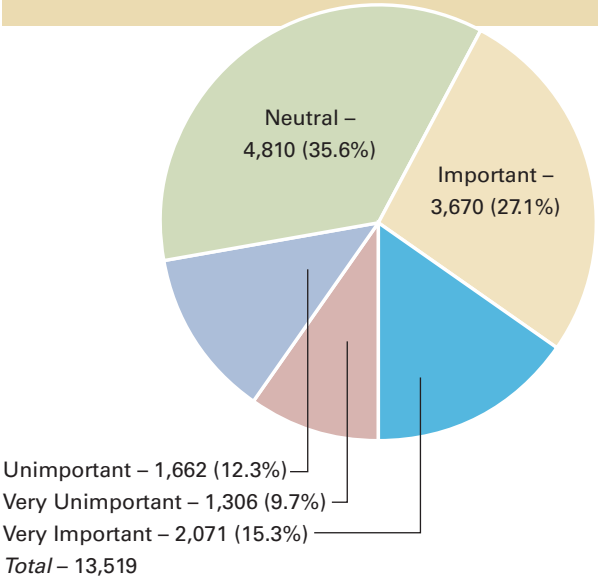
- 80% of the students reported a religious or spiritual preference
- Of those students who indicated a religious or spiritual preference, approximately 40% stated that their religious or spiritual preference played a very important or important role in their lives.
- Students who strongly endorsed the CCAPS item "Spirituality and religion are integral parts of my identity" were significantly less likely to have symptoms of depression, suicide, and substance abuse.
- Students who strongly endorsed the CCAPS item "I find my spirituality to be an important source of support" were significantly less likely to endorse the CCAPS items, "I feel worthless" and "I have thoughts of ending my life."

These preliminary results suggest that spirituality and religion are associated with lower levels of depression, substance abuse, and suicidality - and may therefore play a protective role against some mental health issues. Because a strong majority of college students (80%) endorse a specific spiritual or religious preference, it is important for clinicians to inquire about religion/spirituality in their clients' lives as it may serve as an important coping mechanism which could strengthen the treatment process.

Religious or Spiritual Preference



To what extent does your religious or spiritual preference play an important role in your life?



Contextual Variables

Psychologists have long argued that individuals (and thus their mental health) exist within a series of overlapping contexts of influence (demographics, peers, geography, economics, culture, etc.) each of which contains influential variables. The CCMH infrastructure offers extensive potential for asking nuanced questions regarding these types of complex variables. For the purposes of this report, we took a look at the potential influence of two contextual variables on students' mental health.

SOCIAL SUPPORT

Social support is a well studied correlate of mental health. The Standardized Data Set (SDS) includes two questions on social support which ask students if they get the emotional help and support they need from (a) their family and (b) their social network. Approximately 12,000 students answered these two questions and the results indicate that students who report higher levels of social support also report significantly lower levels of distress on each the following CCAPS subscales:

- Depression
- Anxiety
- Hostility (frustration and anger)
- Social Anxiety
- Academic Distress

When considered with other findings in this report, these social support correlates highlight a foundational concept underlying the mission of student affairs, services, and activities: students who are actively engaged in healthy social support networks are more likely to be academically successful. Thus, colleges and universities wishing to facilitate classroom success must actively support the development and maintenance of healthy living and connection outside the classroom.

SEXUAL ORIENTATION

Issues related to identity development can play a critical role in mental health – and this is especially true during the teenage and college years. The process of coming to terms with a sexual orientation other than heterosexuality can be a particularly tumultuous process in identity development. Retrospective studies have demonstrated that people who are questioning their sexuality may be at elevated risk for mental health problems and this finding is supported by the CCMH data.

- Students who reported that they were questioning their sexual orientation reported average suicidality scores that were twice as high as heterosexual students, and significantly higher than non-questioning gay, lesbian and bisexual students.
- These same students also scored significantly higher on the CCAPS scales of Depression, Social Anxiety and Eating Concerns.

Interestingly, past research has suggested that the increased risk of mental health problems associated with having a minority sexual orientation may be mitigated by social and family support. To explore this, we used the Family of Origin subscale of the CCAPS to control for family problems. Although results generally supported the previous findings, we also found that after controlling for Family of Origin problems, students who were questioning their sexual orientation retained significantly higher scores on the CCAPS Depression subscale, while this difference disappeared for students who identified as gay, lesbian or bisexual. This finding suggests that having good family of origin relationships may significantly reduce depressive symptoms for many students reporting a minority sexual orientation. However, students who seek mental health treatment and are simultaneously questioning their sexuality appear to retain higher levels of depressive symptoms, even in the presence of good family relationships.

Taken together, these sample findings regarding the role of contextual variables in college student mental health help to illustrate the importance of this type of large scale research, the results of which, can have direct and important implications for treatment and advocacy.

Closing Remarks

The 2009 CCMH Pilot Study represents an important proof-of-concept. Anonymous, aggregate, high quality data on 28,000 students from 66 colleges and universities is tangible evidence that the vision of mental health informatics is not only possible, but well within our grasp. Indeed, the potential benefits of a large-scale, collaborative, naturalistic research effort are self-evident given the range of relevant findings presented in these preliminary analyses.

Perhaps the most important result of this effort is simply that it worked, while also providing a solid foundation for future research. The circular flow of data and refined data products within the CCMH infrastructure represents an intriguing model for building an enduring bridge between science and practice. If the data provided by clients informed not just their treatment, but also helpful clinical tools and information for mental health providers, the bridge between science and practice would be significantly enhanced. It is intriguing to consider what we would discover if we invested in the necessary infrastructure to examine treatment outcome data on hundreds of thousands of clients per year.

That college student mental health is a serious and growing concern in higher education is clear. What remains unclear is how the field will choose to respond. Extensive information and expertise on college student mental health already exists in the offices of college and university mental health professionals across the country. We simply need to make a concerted and collaborative effort to gather it.

Thank you for considering the results of this pilot study. They are a direct result of the hard work, dedication, and collaboration of all the mental health professionals at our participating counseling centers. We look forward to what the future holds.

Contact Information

Ben Locke, Ph.D.
Counseling and Psychological Services
Center for Collegiate Mental Health
Penn State University
501 Student Health Center
University Park, PA 16802
Phone: 814-863-0395
Email: CCMH@sa.psu.edu

PENNSTATE
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