Case Management’s Impact on Graduation, Retention, and Suicide at Colorado State University

Abstract
This article, on the program review of the Colorado State University Student Case Management and Referral Coordination, tracks the retention and graduation of students who connected with Student Case Management over the course of seven years, from the fall of 2007 through the spring of 2015, and demonstrates that students who connect with Student Case Management are retained and graduate 79.95 percent of the time, which is significantly higher than the overall graduation rate of 65 percent. (Department of Education, n.d.). Additionally, the program review shows that the highest risk students, those hospitalized for mental health, complete suicide at a very small percentage after connection with Student Case Management. Students with the highest level of need and risk, mental health hospitalizations, are retained and graduate 50 percent of the time, and only 0.25 percent of students who are hospitalized for mental health reasons and connected to Student Case Management at Colorado State University complete suicide. This data indicates that the Student Case Management office does benefit students, staff, faculty, and the institution in general.
**Historical Context of Student Case Management at CSU**

Case Management at Colorado State University was designed to work with students hospitalized for mental health issues. Student Case Management (SCM) began in the fall of 2007 with one pilot program position. A case manager was hired to specifically to work with students who were hospitalized for mental health. The duties and responsibilities of the position quickly expanded to work with a diverse number of student crisis situations and those with complex needs. Today, SCM has grown significantly and is its own department with four full-time employees, two .75-time employees, and one student staff. It is also a regular practicum and internship placement site for graduate level Social Work and Student Affairs in Higher Education (SAHE) students.


After the release of the “Report To The President On Issues Raised By The Virginia Tech Tragedy” (Leavitt, Gonzales, & Spellings, 2007) and “Mass Shootings at Virginia Tech” (Review Panel, 2007), case management became the channel for many key findings and recommendations, which included:

- Institutions of higher learning should have a threat assessment team that includes representatives from law enforcement, human resources, student and academic affairs, legal counsel, and mental health functions (Review Panel, 2007, p. 19).
- Information silos (exist) within educational institutions and among educational staff, mental health providers, and public safety officials that impede appropriate information sharing (Leavitt et al., 2007, p. 7).
- Confusion and differing interpretations about state and federal privacy laws and regulations impede appropriate information sharing (Leavitt et al., 2007, p. 7).
- There were warning signs that preceded many school violence incidents (Leavitt et al., 2007, p. 12).
- Information sharing is critical, and there is a need for communication strategies that build bridges between education and mental health systems (Leavitt et al., 2007, p. 12).
- Effective practices included identifying responsible and appropriate individuals with whom to share concerns, and creating interdisciplinary teams to evaluate the information, assess the degree of threat, and intervene to pre-empt the threat (Leavitt et al., 2007, p. 12).
- There exists a perception of an increasing number of students with serious mental health issues and the lack of adequate services to support them, particularly at college and university settings (Leavitt et al., 2007, p. 14).
- There is an importance of appropriately responding to victims and others impacted by the event (Leavitt et al., 2007, p. 17).

CSU is a public, land grant, research institution with nine colleges and approximately 33,000 students, nearly 5,000 of who are residential freshmen. Between 14 and 25 percent of incoming freshman are first-generation students and between 14 and 24 percent are Pell eligible (Colorado State University, n.d.). CSU has approximately a 1:5500 ratio of CMs to students. CSU case managers are in administrative roles, and although they may develop strong supportive relationships with students and staff, they do not engage in individual therapeutic relationships. In other words, they are not confidential and can share information about a student of concern with other university officials who have a need to know.

Student Case Management works with students in five categories:

1. **Medical:** In the event of a medical emergency, a case manager may visit students in a hospital setting to work with them and their families to assess academic ramifications, refer them to university programs and services upon discharge, and to help with university systems in the event that students cannot continue with academics during the current semester. Some students suffer from chronic health conditions that can have exacerbated symptoms during the academic year. Case managers may work with those students and providers, and liaison with faculty when health conditions interfere with academics.

2. **Mental Health:** Each semester, some students struggle with mental health concerns that may result in a mental health hospitalization. Case managers have formed close relationships with local behavioral health hospitals and are able to collaborate with care providers and meet with students prior to discharge. They are also available to reach out to the students to refer them to campus and community resources, and are available to students...
experiencing mental health difficulties that do not rise to the level of a hospitalization.

3. Alcohol or Other Drugs: Students with alcohol or drug abuse issues may find it helpful to work with a case manager to connect with campus and community resources. In the event of a transport involving alcohol or other drugs, students are required by the BIT to meet with a case manager.

4. Behavioral: A case manager may be consulted when a student’s behavior is disruptive in the classroom, residence hall/apartment, or in the community. A coordinated needs assessment may be beneficial to determine appropriate referrals, and students are encouraged, and sometimes mandated, to meet with a case manager.

5. Personal Crisis: In the event of a personal crisis (e.g., illness, injury, death in the family, etc.), a case manager helps students connect with resources and navigate university systems and processes.

Data & Methodology

All students who were connected with Student Case Management between November 2007 and June 2015 were included in the review to determine retention and graduation rates. Additionally, each student hospitalized for mental health reasons was tracked to determine retention, graduation, and suicide rates.

Assessment Findings/Discovery

Student Graduation, Retention, and Suicide

Of the 6,245 (see Appendix A) individual students who accessed case management services between November 2007 and June 30, 2015: 1,532 students have graduated with a degree; 3,461 students remain active (are currently enrolled or have been enrolled within the last 24 months); and 1,252 are inactive (have not attended within the last 24 months).

Between Nov. 1, 2007 and June 30, 2015, there were 135 student deaths, or which 38 were suicides. During that time, there have been 780 students with 802 (see Appendix B) known student mental health hospitalizations. Some students were hospitalized more than once, and some students did not sign releases of information and CSU did not know that they were hospitalized. Of those 780 students, two completed suicide after connection with SCM and other campus resources.

Student Satisfaction Survey

In an effort to assess student satisfaction with services, SCM surveyed students with Campus Labs Surveys, beginning in 2013 (see Appendix C). During that time, surveys were sent at the end of each month to all students who saw a case manager for the first time. The response rate varies month to month, but overall was 16.48 percent.

Question 1 asked: “What circumstances or crisis led to your connection with Student Case Management? (Check all that apply.)” The top three responses were “Mental Health (45.27 percent), Academic (30.41 percent), and Medical (25.68 percent).

Question 2 asked: “How satisfied are you with the services/referrals from Student Case Management?” Among respondents, 77.7 percent said, “very satisfied” or “moderately satisfied.”

Question 3 asked: “How helpful were the services/referrals to resolving your situation?” Among respondents, 80.74 percent said, “extremely helpful,” “very helpful,” or “moderately helpful.”

Question 4 asked: “To what extent has your knowledge of resources on campus and in the community increased as a result of your interactions with the Student Case Management Office?” Nearly all (89.87 percent of respondents) reported “slightly,” “moderately,” considerably,” or “a great deal.”

Question 5 asked: “To what extent has your experience with Student Case Management prepared you to deal with crisis in the future?” Most (86.83 percent) of respondents reported “slightly,” “moderately,” “considerably,” or “a great deal.”

Question 6 asked: “Would you refer another student in crisis to Student Case Management?” Most (82.43 percent) responded with “definitely would” or “probably would.”

Questions 7, 8, 9: These questions had the lowest response rates and some seemed redundant to students as many would type, “see above.” The responses to these questions pointed to problems in the way in which the questions were phrased and with redundancy.

The most common response to Question 10, “What can we do to improve our services to the campus community?” began with “I wished I knew about you before...,” which indicates a need for better marketing or advertising of SCM services.

There was a pattern in the qualitative data responses to Question 11 and Question 12 that indicates that students confused SCM with other departments, such as conduct or police, likely because SCM reaches out to students as a result of reports generated by another office.

Correlative Factors

Student Case Management was not the only change or addition to Colorado State University in the seven-year review timeframe, and
other possible correlative factors should be noted. The Student Case Management office is likely successful due in part to:

- **Buy-in from higher administration.** CSU President Anthony Frank, dedicated $1.5 million over five years to fund 25 positions in Case Management, Health Network (medical, psychiatry, and counseling), Safety, Victim Advocacy, Conduct, Police, and the Dean of Students offices. Looking at the numbers of tuition dollars retained, it is a small investment with a huge return. During the 2014/15 fiscal year, the cost of attendance for an in-state undergraduate per semester was $9,807 (base tuition was $7,868 and student fees totaled $1,939). Student Case Management had 3,461 students currently enrolled who engaged with a case manager, which totaled $67,884,054.00 kept at the institution each semester.

- **Behavioral Intervention Team.** This team, which consisted of members from Case Management, Support & Safety, Counseling, Conduct, General Counsel, Dean of Students, Residence Life, Police, Public Relations, and Victim Advocacy offices, began meeting regularly every week to discuss students of concern.

- **Health Network.** Counseling, psychiatry, and medical all combined into one entity with shared records. The Health Network is fully supportive of SCM and encourages providers to ask students to sign Releases of Information to communicate with SCM. HN has a dedicated team (a psychiatrist, psychologist, and clinical social worker) for students who need a mental health transport or hospitalization that is only available through a connection to SCM. The Director of Counseling serves on the BIT and is supportive of short-term required/mandated treatment for some students.

- **Well-defined relationships with community providers.** This included with the local hospitals and behavioral health hospitals. Community providers recognized and supported the SCM office and obtained releases of information and called SCM, who would visit with students prior to discharge and schedule follow-up appointments with campus providers. Each year, the SCM team attends the staff meetings at each of the local hospitals to introduce and reintroduce the services that CSU provides. In Larimer County, individual psychiatric services are difficult to obtain, with few, if any, psychiatrists taking on new patients; for those that do, a three- to six-month wait is common.

- **SCM is primary conduit between students and faculty.** Faculty members know that extenuating circumstances that are beyond students’ control and not reasonably foreseeable are verified by SCM. Faculty can view documentation of extenuating circumstances only in the SCM office and will almost always offer considerations (not to be confused with accommodations from the Disability Resource Office) to students, which may include excused absences, extensions on assignments, and make-up exams. SCM information is included on many instructor’s syllabi, and faculty members know and trust that SCM verifies extenuating circumstances and also connects students to services while making recommendations that will not compromise the academic integrity of courses.

### Conclusions

Students that are facing critical personal issues can be successfully retained by providing resources and facilitation to help resolve such issues. Students with physical, mental health, or personal challenges are directly supported by Student Case Management at Colorado State University. Almost 80 (79.95) percent of students who engage with Student Case Management are retained or graduate, and 50 percent of students with significant mental health concerns are retained and graduate. Data collected from 2007–2015 indicates that Student Case Management does benefit students, staff, faculty, and the university in general, keeping tuition dollars at the institution and contributing to retention and graduation rates.

### References


Appendix A: Populations Served/Demographics
The following demographic information is from the fall of 2007 through the spring of 2015:

<table>
<thead>
<tr>
<th>College</th>
<th>Not Reported</th>
<th>Agriculture Science</th>
<th>Business</th>
<th>Engineering</th>
<th>Health &amp; Human Sciences</th>
<th>Intra University (undeclared)</th>
<th>Liberal Arts</th>
<th>Natural Sciences</th>
<th>Warner College</th>
<th>Vet Med</th>
<th>N = 6,245</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>245</td>
<td>325</td>
<td>413</td>
<td>469</td>
<td>994</td>
<td>953</td>
<td>1,249</td>
<td>1,041</td>
<td>359</td>
<td>197</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Class</th>
<th>Freshman</th>
<th>Sophomore</th>
<th>Junior</th>
<th>Senior</th>
<th>Masters</th>
<th>Senior</th>
<th>Doctoral</th>
<th>Doctoral</th>
<th>INTO</th>
<th>Other</th>
<th>N = 6,245</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2,352</td>
<td>1,199</td>
<td>969</td>
<td>1,055</td>
<td>224</td>
<td>145</td>
<td>93</td>
<td>208</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>GPA</th>
<th>0.00 (this includes first semester freshman who do not have a GPA)</th>
<th>1.00–1.99</th>
<th>2.00–2.99</th>
<th>3.00–4.00</th>
<th>4.00</th>
<th>N = 6,245</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1,323</td>
<td>99</td>
<td>517</td>
<td>1,861</td>
<td>2,289</td>
<td>156</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Residency</th>
<th>Not Reported</th>
<th>In-State</th>
<th>Out of State</th>
<th>International</th>
<th>N = 6,245</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>45</td>
<td>4,407</td>
<td>1,340</td>
<td>453</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th>Female</th>
<th>Male</th>
<th>Other</th>
<th>Not Reported</th>
<th>N = 6,245</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3,284</td>
<td>2,845</td>
<td>10</td>
<td>106</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>&lt;No Response&gt;</th>
<th>African American / Black</th>
<th>Anglo American / White</th>
<th>Asian American / Pacific Islander</th>
<th>Hispanic American / Latino</th>
<th>More than one ethnicity</th>
<th>Native American</th>
<th>Not Reported</th>
<th>Other</th>
<th>N = 6,245</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>99</td>
<td>240</td>
<td>4,306</td>
<td>178</td>
<td>489</td>
<td>257</td>
<td>40</td>
<td>420</td>
<td>216</td>
<td></td>
</tr>
</tbody>
</table>
Appendix B: Trends in Numbers
SCM established baseline tracking numbers of total number of students served, as well as students with mental health hospitalizations, medical hospitalizations, and other crises, as shown below.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Students Served (%) change</td>
<td>176 (18%)</td>
<td>330 (+88%)</td>
<td>808 (+144%)</td>
<td>745 (-8%)</td>
<td>1,391 (+87%)</td>
<td>1,615 (+16%)</td>
<td>1,676 (+4%)</td>
<td>1,888 (+13%)</td>
</tr>
<tr>
<td>Census Enrollment (%) change</td>
<td>27,569 (+&lt;1%)</td>
<td>27,800 (+3%)</td>
<td>28,547 (+3%)</td>
<td>29,932 (+5%)</td>
<td>30,450 (+1%)</td>
<td>30,647 (+1%)</td>
<td>31,514 (+3%)</td>
<td>31,725 (+&lt;1%)</td>
</tr>
<tr>
<td>Individual Student Mental Health Hospitalizations (%) change</td>
<td>36 (+61%)</td>
<td>58 (+107%)</td>
<td>120 (-7%)</td>
<td>98 (-13%)</td>
<td>97 (+&lt;1%)</td>
<td>119 (+23%)</td>
<td>140 (+18%)</td>
<td>53 (+56%)</td>
</tr>
<tr>
<td>Medical Hospitalizations (%) change</td>
<td>18 (+6%)</td>
<td>19 (+105%)</td>
<td>39 (-46%)</td>
<td>101 (+38%)</td>
<td>38 (-62%)</td>
<td>34 (-11%)</td>
<td>53 (+56%)</td>
<td>53 (+56%)</td>
</tr>
<tr>
<td>Alcohol or Other Drug (%) change</td>
<td>1* (+280%)</td>
<td>29* (+21%)</td>
<td>35* (+9%)</td>
<td>38* (+3%)</td>
<td>39* (+131%)</td>
<td>90 (-24%)</td>
<td>78 (+15%)</td>
<td>78 (+15%)</td>
</tr>
<tr>
<td>Other Crises (behavioral, death of family member, funerals, natural disaster, Title IX, suicide or death of another student, arrests/legal issues, disciplinary investigations, illness or injury, etc.) (%) change</td>
<td>122 (+107%)</td>
<td>253 (+157%)</td>
<td>651 (-6%)</td>
<td>612 (+92%)</td>
<td>1,178 (+18%)</td>
<td>1,390 (+5%)</td>
<td>1,462 (+5%)</td>
<td>1,537 (+5%)</td>
</tr>
</tbody>
</table>

* numbers were not consistently tracked by SCM at this time.

** Individual students may be active/counted in multiple years.

Appendix C: Online Satisfaction and Impact Survey — Referral Coordination
Within the past month, you were connected to The Student Case Management Office for some reason. You may have been referred by a friend, professor, or administrator, or we may have generated the initial outreach as the result of a report received. We are following up to learn about your satisfaction level and learning related to the services/referrals you received. Your feedback is very important to us and we thank you, in advance, for taking a few minutes to complete this anonymous survey.

1. What circumstances or crisis led to your connection with Student Case Management? (Check all that apply.)
   a. Financial
   b. Medical
   c. Alcohol or Other Drug
   d. Mental Health
   e. Academic
   f. Relationship (i.e. roommate, friend, significant other, family, etc.)
   g. Other: please describe

2. How satisfied are you with the services/referrals from Student Case Management?
   Very satisfied Somewhat satisfied Neutral Somewhat unsatisfied Very unsatisfied

3. How helpful were the services/referrals to resolving your situation?
   Extremely helpful Very helpful Moderately helpful Slightly helpful Not at all helpful

4. To what extent has your knowledge of resources on campus and in the community increased as a result of your interactions with the Student Case Management Office?
   Very much Somewhat Neutral Only a little Not at all

5. To what extent has your experience with Student Case Management prepared you to deal with crisis in the future?
6. Would you refer another student in crisis to Student Case Management?
   - Definitely yes
   - Probably
   - Neutral
   - Moderately dissatisfied
   - Moderately satisfied
   - Slightly satisfied
   - Very satisfied

   ![Graph showing satisfaction levels](image)

7. Are you still working with your student case manager? (yes/no) if yes, go to question 8.

8. What is your current status with Colorado State University?

9. What are your most valuable lessons learned from your experience with Student Case Management?

10. What can we do to improve our services to the campus community?

11. Do you have additional feedback you would like to share?

We appreciate knowing a bit about you; however, demographic information is optional.

1. What is your academic class standing
2. Where do you live
3. Race and Ethnicity categories
4. Veteran status

Q1: What circumstances or crisis led to your connection with Student Case Management? (Check all that apply.)

- Financial: 25.68%
- Mental health: 45.27%
- Alcohol or other drug: 30.41%
- Academic: 21.28%
- Relationship: 11.49%
- Other: 9.12%

![Graph showing Q1 percentages](image)

Q2: How satisfied are you from the services/referrals from Student Case Management?

- Very satisfied: 51.01%
- Moderately satisfied: 26.69%
- Neither satisfied nor dissatisfied: 6.42%
- Moderately dissatisfied: 7.77%
- Slightly dissatisfied: 8.11%

![Graph showing satisfaction levels](image)

Q3: How helpful were the services/referral to resolving your situation?

- Extremely helpful: 31.42%
- Very helpful: 32.43%
- Moderately helpful: 16.89%
- Slightly helpful: 9.12%
- Not at all helpful: 10.14%

![Graph showing helpfulness percentages](image)
Q4: To what extent has your knowledge of resources on campus and in the community increased as a result of your interactions with the Student Case Management Office?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Slightly</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>A great deal</td>
<td>22.3%</td>
<td>11.92%</td>
</tr>
<tr>
<td>Considerably</td>
<td>33.11%</td>
<td>10.14%</td>
</tr>
<tr>
<td>Moderately</td>
<td>22.64%</td>
<td></td>
</tr>
</tbody>
</table>

Q5: To what extent has your experience with Student Case Management prepared you to deal with crisis in the future?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Slightly</th>
<th>Not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>A great deal</td>
<td>22.3%</td>
<td>11.92%</td>
</tr>
<tr>
<td>Considerably</td>
<td>35.81%</td>
<td>10.47%</td>
</tr>
<tr>
<td>Moderately</td>
<td>22.64%</td>
<td>13.18%</td>
</tr>
<tr>
<td>Slightly</td>
<td>10.14%</td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>10.47%</td>
<td></td>
</tr>
</tbody>
</table>

Q6: Would you refer another student in crisis to Student Case Management?

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Definitely would</th>
<th>Probably would not</th>
</tr>
</thead>
<tbody>
<tr>
<td>Definitely would</td>
<td>35.74%</td>
<td>26.69%</td>
</tr>
<tr>
<td>Probably would</td>
<td>19.91%</td>
<td>8.45%</td>
</tr>
<tr>
<td>Probably would not</td>
<td>10.47%</td>
<td>9.12%</td>
</tr>
<tr>
<td>Definitely would not</td>
<td>10.14%</td>
<td></td>
</tr>
</tbody>
</table>