An Analysis of Intake Appointment Attendance for the University of South Florida's Office of Student Outreach and Support

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Abstract
This research was conducted as quality assurance for the Office of Student Outreach and Support at the University of South Florida. This quality assurance project sought to gain insight into the rate of attendance for intake appointments with a case manager and to better understand the factors that contribute to students' likelihood of attending appointments. Logistic regression was conducted to analyze the rate of intake attendance using risk rating, sex, campus residence, and appointment type as the independent variables. Additionally, a survey was administered to those students who chose not to attend intake appointments to better understand their reasons for not attending. This article presents the results of the logistic regression analysis and the survey, and provides implications for Behavioral Intervention Teams and case management practice.

Introduction

Students enrolled in colleges and universities have long been in need of support and resources. However, the tragedies at Virginia Tech and Northern Illinois University drastically changed the way in which higher education administrators viewed not only students in need of support, but also how the support should be delivered (Sokolow & Lewis, 2009; and Van Brunt, Woodley, Gunn, Raleigh, Reinach Wolf, & Sokolow, 2012). The post-Virginia Tech and NIU world of higher education is much more focused on reducing risk and threat, while at the same time providing interventions and support to those students posing a risk and threat (Sokolow & Lewis, 2009). Colleges and universities saw a need to respond to threats before they occurred, or before concerning behavior escalated, and found this early intervention approach effective in reducing threats to the campus. "An understanding of information-sharing thresholds before a situation arises is likely the best path to overcome obstacles that will inevitably, and possibly unnecessarily, arise the heat of an emergent threat" (Jarvis & Scherer, 2015, p. 17).

In response to this new focus on prevention and early intervention as a means for reducing threat, the field of higher education saw the emergence of Behavioral Intervention Teams (BITs). According to the National Behavioral Intervention Association (NaBITA) Standards for Behavioral Intervention Teams, BITs "are small groups of school officials who meet regularly to collect and review concerning information about at-risk community members and develop intervention plans to assist them" (NaBITA Advisory Board, 2018). BITs have provided a systematic and comprehensive approach to identifying, tracking, and responding to students of concern on campus (Sokolow & Lewis, 2009). BITs therefore create a mechanism by which campus administrators can become aware of students who may be struggling and can develop a plan for providing resources to those students.

Due to the high volume of students referred to BITs and the need to provide tailored, targeted supports to these students, administrators serving on BITs quickly realized that their teams needed a dedicated, well trained, full-time professional staff member to respond to the students reported to the BIT (Van Brunt et al., 2012). These staff members are now known as higher education case managers.

The concept of case management is crucial to the BIT process and is now a standard of practice for BITs. The 2018 NaBITA Standards for Behavioral Intervention Teams identifies case management as one of the core process elements for BITS, stating that "teams invest in case management as a process, and often a staff position, that provides flexible, need-based support for students to overcome challenges."

Although BITs and case management programs evolved out of a response to campus shootings and need for threat assessment, "case management today isn't limited to those struggling with mental health challenges," and BIT work is not limited to reacting to threats (Van Brunt et al., 2012). The Higher Education Case Manager Association defines "case managers" as individuals who "serve their university and individual students by coordinating prevention, intervention, and support efforts across campus and community systems to assist at-risk students and students facing crises, life traumas, and other barriers that impede success" (HECMA, 2013). Meeting with a case manager not only provides support to the students, but it can also provide valuable information back to the BIT as the case manager assesses ongoing risk and aims to reduce or mitigate risks. "All case managers seek to improve communication among those involved in the case and identify and create solutions to overcome potential obstacles or problems with the student following through the existing plan of action" (Van Brunt, 2012, p. 67). It is therefore imperative that BITs find a way to link students with case management services in an effort to improve communication and support.

The University of South Florida's BIT is known as the Students of Concern Assistance Team (SOCAT), and the case management program is known as Student Outreach and Support (SOS). Similar to the national model, SOCAT is a comprehensive and multi-disciplinary team tasked with assessing and responding to students of concern, while the SOS case managers provide the direct services and interventions to students in need. For every referral, SOCAT uses the Concern for General Wellbeing and Harm to Self Scale" and the "Concern for Disruption to Community and Harm to Others Scale" to assign a risk rating to the referral (i.e., mild, moderate, elevated, or severe) and determines if an SOS intake assessment appointment is optional or mandated. When students reach elevated or severe on the risk-rating rubric (and in cases where there are repeated referrals, or disruptive behavior at the moderate level) the intake assessment appointment is required. Students who do not attend the mandated appointment have a health and wellness hold placed on their account until they comply with the requirement and/or they are referred to the Office of Student Rights and Responsibilities for conduct action. This procedure is outlined and published in the USF System Policy governing the Health and Wellness Interventions of SOCAT and the SOS Office.

All of the SOS case management services stem from the initial intake assessment appointment. It is during this appointment that the case manager conducts a thorough assessment to begin understanding the risk posed by or to a student, so that an appropriate plan for inter-vention can be deployed. Without the intake appointment, it is nearly

impossible to get an accurate assessment and to coordinate any follow-up care and/or referrals. Therefore, this research aims to understand the rate of attendance for intake appointments, what factors might make someone more likely to attend an intake appointment, and what reasons students might have for not attending an intake appointment.

Methodology

Sample and Methods

The data for this study came from the USF SOS case management program's end-of-year quality assurance analysis. The SOS case managers serve all USF students, both undergraduate and graduate, but do not serve faculty and staff. Two data sets were collected and analyzed, one from the SOS case management database and one from an online survey administered by the SOS case management department to the students who did not attend their intake appointments.

The SOS case management program uses Symplicity Advocate to store and track all referrals and all case notes associated with referrals. This system allows us to "collect robust referral data, run comprehensive end-of-year reports, and begin to analyze the data related to referrals" (Schiemann & Morgan, 2017). For the first data set in this study, the raw data was collected by creating and running a Symplicity data report to extract information for the fields of intake appointment, campus residence, sex, appointment type, and risk rating for all referrals who were offered an intake appointment to the SOS program during the 2017–2018 academic year. Some referrals, due to the presenting issues, were either referred to another office or coded for no action. These referrals were not included in the study, as the students were never offered an intake appointment. Also, due to case management error, some referrals had incomplete records and were therefore excluded from the study. The final dataset included 687 referrals.

The second data sample was collected via Qualtrics, an online survey program. A census sampling method was used, as an email was sent to any student that chose not to attend an intake appointment, inviting them to complete the survey. The survey went out at the end of the academic year, and there was no incentive offered to complete it. Unfortunately only 43 students responded to the survey from a sample of 327, resulting in a 13.7 percent response rate. Given that the sample was of students who did not engage with case management, this low response rate was anticipated. This data set was not cleaned or coded, and Qualtrics produces descriptive statistics within the survey software.

Analysis

To analyze the rate of intake attendance, and the factors that increase the likelihood that a student will attend an intake appointment, this researcher conducted logistic regression. The dependent variable in this study was intake attendance — a binary (yes or no) categorical variable. There were four predictors, or independent variables, and they were all also categorical: sex (male of female), campus residence (on or off), appointment type (encouraged or required), and risk rating (mild, moderate, elevated, or severe). The categorical variables in this dataset were coded into dummy variables to conduct statistical analysis. The independent variables of appointment type and risk rating are highly correlated, as students with an elevated or severe rating are always required to attend an intake, and students with a rating of none or mild are always encouraged. Therefore, the model for the logistic regression only included appointment type (encouraged or required) to correct for issues of collinearity. Statistical Analysis Software 9.4 was used to run the logistic regression.

To understand why students choose not to attend an intake appointment, this researcher analyzed the results of the survey to produce descriptive statistics such as frequency and percentages. To analyze the survey data, this researcher used the reporting tool available with the Qualtrics Software.

Results

Intake Data Results: Of the students offered an intake during the 2017–2018 academic year, more than half attended an intake (53.57 percent) (See Figure 1). Descriptive statistics results indicate that more females than males were referred to SOS (N = 414, N = 273) but that they attended appointments at approximately the same rate, as nearly 54 percent of females

Figure 1. Percentage of Students Attending an Intake Appointment

Intake **54%**   No Intake **46%**
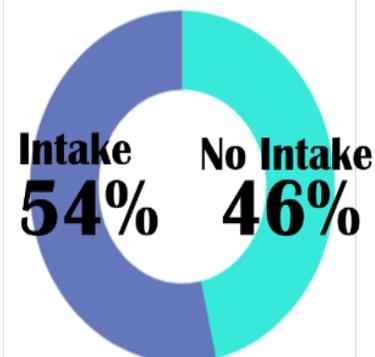
attended compared to 53 percent of males. Descriptive statistics show that students rated at a risk rating level of "none" attended no intakes, while all but one student rated at "severe" attended an intake appointment. Students rated in the middle at "mild," "moderate," and "elevated" attended intakes at rates of 43 percent, 56 percent, and 88 percent, respectively. Students living off campus were referred at higher rates than those living on campus (N = 483, N = 204) and attended a higher percentage of intake appointments than those living on campus (56 and 47 percent, respectively). Throughout the academic year, 20 percent of referrals (n = 137) were required intake appointments. Ninety-one percent of students with required appointments attended their intake appointments, while 44 percent of students with optional intake appointments attended their intakes. See Figure 2 for a display of the descriptive statistics of the independent variables.

In the logistic regression model with the risk rating removed due to collinearity with the appointment type, results indicated that of the predictor variables, only appointment type and campus residence were statistically significant predictors for attending an intake (p = <.0001 and p = 0.0104 respectively). Students who were classified as having a required appointment with an SOS case manager were nearly 13 times more likely to come in for an appointment than those students classified as having an encouraged appointment. For the second statistically significant predictor, campus residence, students living on campus were nearly half as likely to attend an intake appointment as those students living off campus. The other independent variable included in this model, sex, was not statistically significant. See Table 1 (next page) for the logistic regression results.

A second logistic regression model was run, which removed appointment type, and included risk rating instead, to see if risk rating was also a statistically significant predictor without appointment type. Logistic regression results for this model indicated that risk rating was a statistically significant predictor (p < .001), and that students rated as severe were 16 times more likely than students rated as a mild, 10 times more likely than students rated as a moderate, and one and a half times as likely as students rated as elevated to come in for an appointment. However, when this researcher conducted an analysis of the subgroup of students assigned required appointments, there were no differences between rating levels. Therefore, this researcher attributes this to the required appointment type for those students rated as severe, more so than the level of risk rating by itself.

Figure 2. Percentage of Students Attending an Intake by Independent Variable
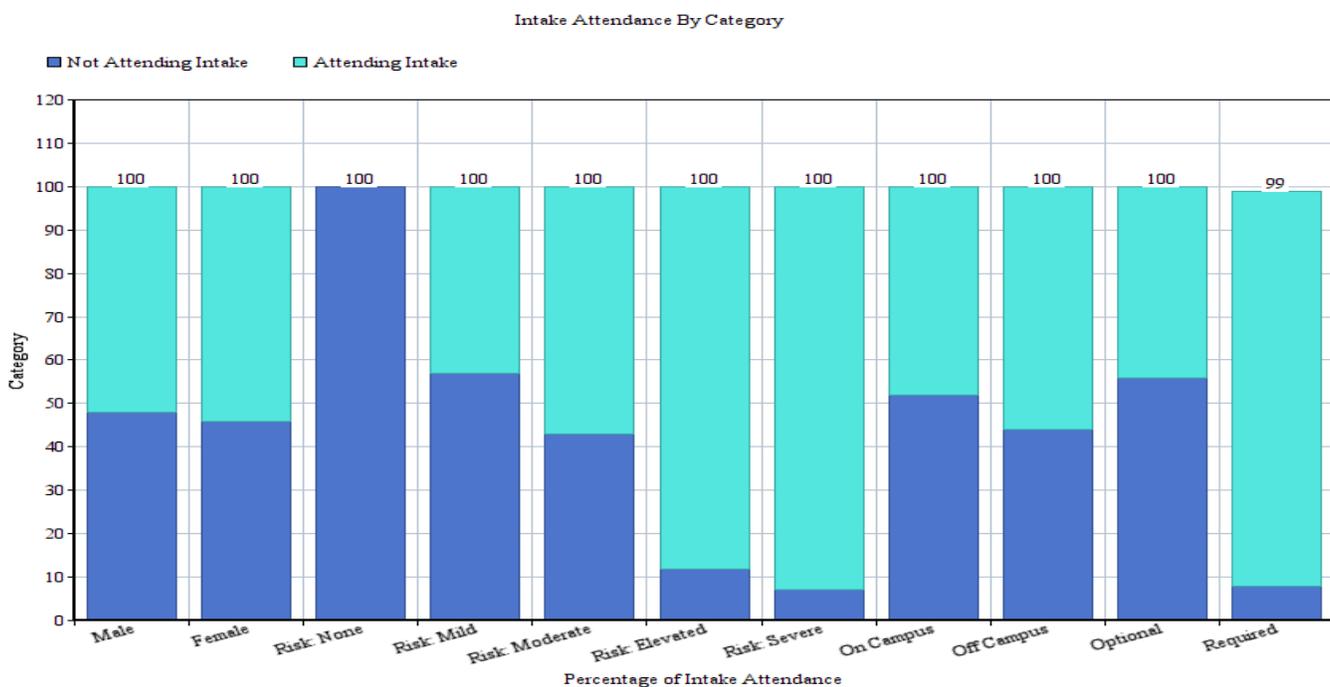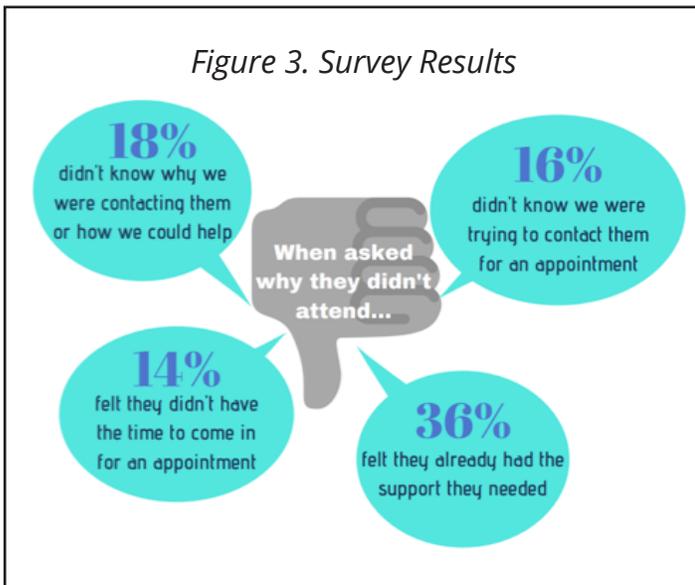
Table 1. Logistic Regression Results for the Model, Including Appointment Type and Excluding Risk Rating

Variable	P Value	Odds Ratio
Sex	.3165	N/A as not statistically Significant
Campus Residence (Off vs. On)	.0104*	.624*
Appointment Type (Optional vs Required)	<.0001*	12.578*

Figure 3. Survey Results

18% didn't know why we were contacting them or how we could help

16% didn't know we were trying to contact them for an appointment

When asked why they didn't attend...

14% felt they didn't have the time to come in for an appointment

36% felt they already had the support they needed

Survey Results. The survey asked students why they did not attend their appointments with SOS case managers and provided a list of options from which they could make their selections. Additionally, the survey asked if students understood why SOS was contacting them, and how SOS could help. The most common reason (36 percent) students selected for not attending an appointment was that they felt they already had the support they needed. Students also commonly reported that they didn't know SOS was contacting them (16 percent), and that they felt they didn't have time for an appointment (14 percent). When asked if they understood why SOS was contacting them for an appointment, 18 percent of the students reported that they did not, and they also did not understand how SOS could help them. See Figure 3.

Discussion and Implications

While no existing research or best practice standards exist to benchmark intake attendance against, anecdotal evidence through conversations with others in the field suggests that the SOS case management program has a strong rate of intake attendance, given that 54 percent of the total students, and 89 percent of the students rated at elevated or severe, attend intake appointments. In the two logistic regression analyses run, one with appointment type as a variable and one with risk rating as a variable, we see that both of these variables are statistically significant predictors, and that the likelihood of attending appointments increases with risk and when the appointment is mandated. This researcher attributes this to the use of mandated appointments more than risk rating itself; however, students rated higher on the scale are also more likely to have a required appointment. Further researcher into the interaction effect between these two variables would be useful in understanding these results.

This researcher interprets the results of both risk rating and appointment type being statistically significant as an indication of the importance of using an objective risk rating scale. To accurately capture risk and assign mandated appointments accordingly, campuses must use an objective scale. Given that both variables are statistically significant in increasing the likelihood that students attend their appointments, it is important that institutions objectively, accurately, and effectively assign risk ratings and issue mandated appointments.

Furthermore, given that having a required appointment is a statistically significant predictor that students will be more likely to attend their appointments, it is recommended that this practice remain in use at USF and that other institutions consider adopting a similar practice. The use of required appointments should be connected to the use of a rubric and should correlate with specific risk ratings on the scale. As indicated by this study, the use of this practice is related to high-risk students frequently attending an appointment.

Surprising to this researcher, students who live off campus are more likely to attend appointments than those who do not. This phenomenon may be related to the survey response indicating that 36 percent of students who didn't attend an intake appointment did so because they felt they already the support they needed. This researcher hypothesizes that one explanation for off-campus students being more likely to attend SOS intake appointments is that the on-campus students are more likely to be connected with resources and therefore may not feel the need to meet with case managers for support. Future research should test this hypothesis to explore why off-campus students are more likely to attend intake appointments with case managers. It may be additionally helpful to explore the existing relationship with Residence Life and opportunities to better partner with that unit to connect residential students with case management services.

The survey results suggest that improvements could be made to the SOS process for inviting students in for intake appointments to better explain how case managers could help even if other supports are in place, why the case management office is contacting them, and the small time commitment involved in meeting with case managers. The SOS case management program should consider including in its outreach emails, phone calls, and contacts information related to the role of case managers, the reason for referral to the case management program and specific examples of what a case manager does (i.e., connection to resources, assistance with communication to professors, etc.).

Further, given that 16 percent of students reported not knowing that SOS was trying to contact them, the SOS case management program should explore its current outreach protocols for ways to improve how to contact students in ways that reach them effectively. Current protocols include phone calls, text messages, and email. To access these letters, the student must click a link in the email and log into the Symplicity portal. This process may be too cumbersome for students, and including the content of the letter in the email itself may be more accessible to students. Once the above changes have been put in place, this researcher suggests conducting this same analysis again to see if improvements in the overall intake attendance rate have occurred.

Conclusion

Colleges and universities have and will continue to have students of concern on campus. Behavioral Intervention Teams and case management programs are programs designed to provide proactive interventions for these students. Through the use of intake appointments with case managers, student of concern may have access to resources about which they otherwise would not know. Using a risk rating rubric or scale, as well as encouraged and required appointments, can help case management target the students most at risk to increase their likelihood of attending their intake appointments with case managers.

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