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School-Based Mental Health Screening: Improving Outcomes Through Interprofessional Communication and Collaboration

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Improving Outcomes Through Interprofessional Communication and Collaboration

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## Table of Contents

Section I. Title and Abstract ........................................................................................................... 4

**Section II. Introduction**

Problem Description .................................................................................................................... 5

Available Knowledge .................................................................................................................. 7

Rationale ...................................................................................................................................... 15

Specific Aim .................................................................................................................................. 17

**Section III. Methods**

Context ......................................................................................................................................... 18

Intervention .................................................................................................................................... 18

Study of the Intervention .............................................................................................................. 25

Measures ....................................................................................................................................... 26

Analysis ......................................................................................................................................... 27

Ethical Considerations ................................................................................................................ 27

**Section IV. Results** ................................................................................................................... 28

**Section V. Discussion**

Summary ....................................................................................................................................... 33

Interpretation ............................................................................................................................... 35

Limitations ..................................................................................................................................... 37

Conclusions .................................................................................................................................... 37

**Section VI. Funding Sources** .................................................................................................. 38

**Section VII. References** .......................................................................................................... 39
Section VIII. Appendices

Figure 1: Intervention Model for Children’s Mental Health .............................................43
Figure 2: Multi-Tiered System of Supports........................................................................44
Appendix A: DNP Statement of Non-Research.................................................................45
Appendix B: Organizational Support Letter...................................................................48
Appendix C: Evidence Evaluation Table........................................................................49
Appendix D: Youth Pediatric Symptom Checklist (PSC-Y)............................................51
Appendix E: Student Referral Flow Chart....................................................................53
Appendix F: Interdisciplinary Case Review Form ............................................................54
Appendix G: Gap Analysis..............................................................................................56
Appendix H: Gantt Chart.................................................................................................57
Appendix I: Work Breakdown Structure.......................................................................58
Appendix J: Communication Matrix..............................................................................60
Appendix K: SWOT Analysis..........................................................................................61
Appendix L: Cost Benefit/Avoidance Analysis...............................................................62
Appendix M: Budget and Return on Investment.............................................................63
Appendix N: Pre- and Post-Surveys...............................................................................64
Appendix O: Presentation Slides....................................................................................67
Appendix P: Interprofessional Collaboration Survey Raw Data and Mean Score Comparison Table .........................................................................................................................71
Appendix Q: Mental Health Literacy and Screening Readiness Raw Data and Mean Score Comparison Table ........................................................................................................73
Appendix R: Qualitative Survey Thematic Results.........................................................75
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Abstract

For the adolescent population, the immediate impact a mental health disorder has on academics, relationships, and even suicide risk cannot be understated. Access to mental health care in low-socioeconomic communities for adolescents is fraught with barriers. These include lack of transportation, lack of insurance coverage, fear of stigma, and a fundamental lack of knowledge regarding available resources. It is therefore a two-fold problem that exists for those in the care and observation of these adolescents; underutilization of appropriate routine screening and navigation to access care. This project aimed to remediate both of these issues at a high school located in Alameda County, California. The school currently provides access to an on-site School-Based Health Center (SBHC) in addition to several guidance counselors and ancillary support staff. Even with these available resources, the organization lacked a protocol that utilizes a universal psychosocial screening tool as well as interprofessional collaboration (IPC) to facilitate case management of students identified for the need of emotional or behavioral health services. The project consisted of the introduction of a validated psychosocial screening tool and a model for IPC delivered via a one-hour educational workshop to each of the identified stakeholders at the high school campus. Pre- and post-survey results indicate an increase in knowledge in mental health literacy as well as proficiency in the use of the tools presented. Additional qualitative feedback indicates a willingness among all stakeholders to adopt the IPC activities presented and two-month follow up interviews demonstrates a modest preliminary application of effective screening use.

Keywords: adolescent mental health, SBHC, interprofessional collaboration, screening
Section II: Introduction

Problem Description

According to the National Alliance on Mental Illness (NAMI, 2019), 20% of adolescents age 13-18 currently struggle with a mental health disorder. Untreated, these disorders can have long-term negative implications on the individual as well as on the costs associated with deferred mental health care. Adolescent mental health plays a significant role in the outcomes of success or failure for students in high school. This period of growth and maturation is already rife with social and physiological changes that make navigating life a challenge. Add to this the compounding effects of an underlying mental health or substance use disorder and the worsening of symptoms can result in decreased functioning, high rates of school absenteeism, and drop out.

The Alameda County high school chosen for project implementation has a student population of approximately 1,600 students with a minority enrollment of 97% with 83% considered economically disadvantaged, and the school overall has a 70% graduation rate, far below the California State defined target of 90% (U.S. News and World Report, 2018). This is reflective of the overarching issue faced in many communities where adolescent mental health screening and referral policies do not exist or may be inadequate.

To complicate matters further, several barriers within the population at this site have been identified, such as lack of transportation and insufficient or nonexistent health insurance, further impeding the ability to access timely mental health screening and treatment. One system for identifying and providing these assessments and referrals to adolescents is to bring these services where the students are through the School Based Health Center (SBHC). These organizations are situated on the school campus and provide primary, secondary, and tertiary levels of intervention to students who might otherwise not have access to such care. Within Alameda
County, California, 29 SBHCs provide an integrated model of care, which include medical, dental, and behavioral health as well as wellness and prevention education (Alameda County Health Care Services Agency, 2019).

Just having access to such a facility based in close proximity does not, however, guarantee its effective use in serving students with emotional or behavioral needs. Processes need to be in place in order to bridge the gap between families, the education system, and health care providers regarding student mental health needs. The Office of the Child Advocate (OCA) recommends the use of universal psychosocial, emotional, and behavioral screening of students for early identification and intervention of youth in need of such services (Office of the Child Advocate, 2014). This recommendation came as a result of the investigation into the 2012 mass shooting at Sandy Hook Elementary School in Newtown, Connecticut, in which it was determined that the shooter had a history of untreated mental illnesses in his youth. Based on this recommendation, an observational and experiential assessment of the system at one SBHC and the supportive departments within the same high school campus revealed several gaps in the delivery of mental health screening and subsequent referral of the student population on campus. Several points of entry into the SBHC, the lack of a universal screening tool, and absence of stakeholder communication and collaboration has rendered the system fractured and siloed, with no pipeline for appropriate referral and follow up between the vested parties. This lack of cohesiveness in case management is significant at this particular school site as the demographics indicate both high percentages of minority as well as economically disadvantaged students. Both of these indicators have a higher risk and prevalence of mental health disorders related to socioeconomic and racial stressors (American Psychological Association, 2017). This led to the
determination of the need to implement an efficient system of mental health screening and care collaboration within the existing SBHC and supporting resources.

**Available Knowledge**

Beyond the family nurse practitioners that staff the SBHC, the school nurse, school guidance counselors, health educators, the school psychologist, and administrators are often met with students struggling with mental and behavioral health issues that have a significant impact on several, if not all, aspects of the adolescent’s life. Based on the existing resources and protocols at the selected high school site, the question for the project developer became: For the identified high school staff stakeholders, does the incorporation of a universal mental health screening tool and education on enhanced interprofessional communication and collaboration improve at-risk student identification of mental health disorders and subsequent case management for these individuals?

**Local Data and National Benchmarks**

A study by Amaral, Geierstanger, Soleimanpour, and Brindis (2011), conducted in the same county as the proposed quality improvement project, sought to determine the characteristics of students who utilize the services of the SBHC and the role these facilities play in addressing adolescent mental health needs. Several findings related to barriers to care fall in line with national data which, according to the Department of Health and Human Services (HHS) states specifically that adolescents with insurance (public or private) and those living in urban areas are more likely to receive the care needed (U.S. Department of Health and Human Services, 2019). The Alameda County study echoes these findings and highlights that “students who used the SBHC were 74% (OR = 1.74, 95% CI: 1.16, 2.59) more likely to have always gotten the mental health services they needed than nonusers; and being an SBHC mental health
services user increased the odds of getting mental health care by 81% (OR = 1.81, 95% CI: 1.22, 2.66)” (Amaral, Geierstanger, Soleimanpour, & Brindis, 2011). The high school chosen for the project setting, an urban low-income community included in the 2011 study, has demonstrated a need for a more effective system for delivery of services, collaboration, and referral.

**Literature Review**

A literature review was conducted to establish evidence in improved adolescent mental health outcomes from utilizing SBHCs, a standardized screening method, and the collaborative model of interprofessional team-based care between the SBHC medical professionals, guidance counselors, and administration. The databases searched include the Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, Educational Resources Information Center (ERIC), and PsycINFO using the terms *school based health center, mental health, interprofessional, referral system,* and *outcomes*. Inclusion criteria were English language, full-text; population ages between 12 and 17, with no publish date restriction. Initial search results yielded 223 articles, which, after inclusion for relevance, were reduced to 26 articles suitable for further review. Abstract review further reduced the total to eight titles selected for inclusion in this review based on defined criteria and relevance. Selected articles were analyzed to assess the level of evidence using the Johns Hopkins Nursing Evidence-Based Appraisal Tool (2017) (See Appendix C for the Evaluation Table).

**Universal screening.** Gall, Pagano, Desmond, Perrin, and Murphy (2000) conducted a study to determine the utility and impact on student mental health outcomes of the Youth Pediatric Symptom Checklist (PSC-Y) screening tool and subsequent referral to the SBHC for mental health services. Using a single site high school, the researchers evaluated the results of the implementation of the screening tool with 383 students, demographically characterized as
74% Hispanic, 17% Caucasian, 5% African American, and 5% Asian. Of the students that completed the self-administered screen, 14% scored at or above the scoring cutoff. Results were significant for positively identifying students who had previously sought mental health services, female students, students who are parents, and those who received Medicaid insurance services. Additionally, 12% of the students (N=48) reported that they would like additional mental health services for emotional or behavioral problems (Gall et al., 2000). The overall findings of the study corroborated previous results demonstrating the utility of psychosocial screening using the PSC-Y tool with follow up data revealing a 50% decrease in absenteeism and a 25% decrease in tardiness in students positively identified and subsequently referred to mental health services.

Citing the 2014 OCA report, Donahue, Goodman-Scott, and Betters-Bubon (2015) sought to demonstrate the efficacy of the use of universal screening through a district wide case presentation using an action research framework. A universal screening pilot program using the Behavior Assessment System for Children, Second Edition Behavioral and Emotional Screening System (BASC-2 BESS) was implemented in three district schools over the course of a single academic year with a second year of screening for follow up. The tool selected for the program measures both internalizing issues, such as emotional disturbance, externalizing or behavioral issues, academic or learning issues, and adaptive skills. One early identified benefit of the universal screening, as reported by a school administrator, was the ability to design counseling services based on trends in student needs derived from concrete data. During the first year of implementation, participants in grades 3, 6, and 9 (N=313) completed the screening with a resultant 10% (N=30) having been identified as having increased need for intervention. Of these students identified, 80% had been previously referred to the administration for disciplinary intervention; however, the remaining 20% had not been previously referred for related
disciplinary action. This indicates that an increase in students identified with emotional or behavioral disturbances was the result of the universal screening. Through personal communication with school, family, and community stakeholders, the benefits of the program were identified as an increased awareness of emotional and psychosocial needs, increased collaboration with community-based mental health providers, services provided prior to the need for crisis-level intervention, and a greater awareness among parents/caregivers of the child’s emotional or behavioral needs (Donahue, Goodman-Scott, Betters-Bubon, 2015).

**Interprofessional roles and collaboration in SBHCs.** Basing the design on Bronstein’s model of Interdisciplinary Collaboration, which identifies the five key components of interdependence, flexibility, role identification and professional activities, investment in shared goals, and process reflection, Davis, Montford, and Read (2005) present a method to address ongoing needs and concerns of student mental health care within the team dynamic of SBHCs. The authors detail the process of incorporating interdisciplinary case reviews (ICR) into the communication matrix between the professionals involved in the SBHC. Necessary components of the ICR include clear definition of professional roles and delineation of responsibility within the team and a well-defined protocol for appropriate referral. The necessity for professional activities such as the ICR, according to the authors, is multifaceted and includes the fact that students may have preference for one professional over another based on history and rapport. Additionally, the complexity of expertise of each professional and the collective value this shared knowledge provides maximizes the quality of care and referral for the students they serve (Davis, Montford, & Read, 2005).

One member of the multidisciplinary team that is included in the proposed project is the school guidance counselor. Erickson and Abel (2013) present an examination of the roles the
school counselor plays in the implementation and on-going sustainability of a school-wide screening program for depression and suicide risk. The methods of implementation are similar to other programs and, in fact, to the program proposed in this paper. What is uniquely highlighted in this article is the counselor’s role in not only administering the screening to the students, as they have frequent contact for multiple student needs, but the role of the counselor in contacting the caregiver of an identified student to convey screening results and to make recommendations. The authors cite the established relationship that the school counselor fosters with the students and their family due to the diversity of issues the counselor works on with each student as the reason for the comfort level between the two parties. The authors go on to posit that if a positive screen is conveyed in a less intimidating capacity, there is increased likelihood of follow through to care on the part of the family (Erickson & Abel, 2013).

According to Hardy (1996), interagency coordination enables the participating agencies to be more effective yet retain autonomy, while collaboration draws on the unique knowledge and specialty of each in a manner in which the most effective and sustainable outcomes can be achieved. As the author notes, both of these elements are necessary for successful interprofessional collaboration, with the most important component in successfully building and maintaining relationships, coordinating referrals, and maintaining confidentiality being effective communication. This cannot be understated and the author goes on to state that efficiency of communication is key. As one participant in the authors study conveyed, “time is a scarce commodity” (as it is in most organizations) and that meetings should be “purposeful and efficient” in an effort to maintain open lines of communication and convey pertinent issues related to the health center to all members of the team. Another key point in the structure of interprofessional collaboration that is explored in this study is whether the collaboration is
voluntary or required, a concept the author refers to as the “Continuum of Interaction” (Hardy, 1996). While the supposition could be made that more effective collaboration results from a dynamic in which all parties are participating voluntarily, it is not a binary outcome. As Hardy (1996) points out, one site included in her study fell under the “mandated program” design but actually represented a more successful model. The reasoning behind this is that while the initiative is mandated from a state level, with requirements and provisions that were predetermined, the program itself and the organizational level collaboration were left to the individual school site. This enabled the participants at the community level to make the determinations voluntarily as to what were the best agencies and individuals to bring together. The author describes this effective model as “top down support for bottom up reform,” a useful philosophy for the design of any collaborative effort.

Continuing with the importance of communication in collaboration, Wilson, Tang, Schiller, and Sebera (2009) outline a case report in which the health care triage model is employed in the school setting. The appropriateness of this type of rapid identification and stratification of needs is based on the premise that teachers and school counselors do not have the specific expertise nor time to spend with each student to perform an in-depth screening for emotional or behavioral issues, but rather are well positioned to assist in identifying students in need of further assessment. The authors point out that most school systems in place operate on a tertiary level of intervention, that is to say that mental health needs are addressed when it has reached a high level of acuity. In this article, the authors outline a screening tool called the School Mental Health Screening Interview, a tool that can be used in an informal meeting within a short period of time. The questions are structured in a manner that initially build rapport prior to asking more personal emotional or behavioral questions. The authors highlight the importance
of utilizing a tool that is not only appropriate for the layperson to employ, but also one that does not cause the student to withdraw. While the premise of the triage model and its applicability in the school setting is useful, this author is reticent to apply the specific tool that the article introduces. The reasons for this are that although the design is utilitarian, limitations appear to be the less-than straightforward nature of scoring and the lack of specific indicators or process for referral.

Uniquely addressing the needs of the population within the same county as the identified project site, Schapiro, Gutierrez, Blackshaw, and Chen (2018) discuss the mental health issues facing unaccompanied immigrant youth and, specifically, the successes and barriers to a multidisciplinary SBHC screening and referral program. A retrospective chart review was conducted of non-English speaking newcomers for the then-current academic year 2015 as well as comparison dates from 2013 through 2016. Specific data extraction included indicators for substance use, depression, number of behavioral health visits, as well as indicators for physical and reproductive health and education. Total sample size was 56 with 44% of the screened students (N=25) receiving a referral for behavioral health services. The screening items specifically did not pose detailed questions regarding trauma history as this was reserved for assessment at follow-up. The policy within the SBHC for follow up behavioral health assessment includes the use of the two-item Personal Health Questionnaire (PHQ-2) and, if warranted, the nine-item PHQ-9, as well as a validated substance use screening tool. Of this sample, the primary diagnoses that emerged, using the International Classification of Diseases, Tenth Revision (ICD-10), were adjustment disorder, anxiety, depression or both. Specific stressors identified by behavioral health staff related to history of abuse, current social environment, and lack of support.
The results of this study conclude that a multidisciplinary team approach to early screening and intervention facilitated the discovery of otherwise potentially unmet needs in an extremely vulnerable population. In addition, the structure of the program that facilitated collaboration between the school and community agencies provided a coordinated, patient-centered medical home which provided multiple services in a familiar and accessible setting (Schapiro, Gutierrez, Blackshaw, & Chen, 2018).

**Impact of SBHC utilization on student mental health outcomes.** With minority and low-socioeconomic status being significant indicators for increased risk of mental health disorders and higher long-term health care expenditure, Guo, Wade, and Keller (2008) sought to determine the impact of SBHC use on mental health care service utilization and health-related quality of life (HRQOL) scores. The study employed a longitudinal quasi-experimental time-series repeated measures design which evaluated the determined indicators between four school sites that offered SBHC services and two sites that did not. Data was derived both from an outcomes perspective as well as a cost perspective and four dependent variables were identified; the percentage of students enrolled in both Medicaid and the study schools that accessed mental health services before and after the opening of the SBHC, total Medicaid health care reimbursement, total cost for mental health care and associated services paid by Medicaid (excluding prescription drug costs), and the HRQOL as reported by individual students and their parent(s)/caregiver(s).

The study results demonstrate that after the opening of the SBHCs, the percentage of students that accessed mental health services in urban SBHC schools increased 5.6% and in the rural SBHC by 5.9%. Conversely, in the non-SBHC schools, mental health service utilization only increased 2.6% and 0.2% in the urban and rural setting respectively. Additionally, both
SBHC users and nonusers had lower rates of reimbursement for total health care and mental health services compared to the student population in the non-SBHC schools. The results of the psychosocial HRQOL surveys did not demonstrate statistical significance between SBHC users and nonusers, however, there was a noteworthy increase in positive psychosocial indicators among the student participants that utilized SBHC services compared to their nonuser counterparts (Guo, Wade, & Keller, 2008).

Evaluation of the literature provides clear evidence to the effectiveness of universal psychosocial screening of adolescents in the early identification of emotional and behavioral issues and the impact this has on the student, the caregiver(s), and the school itself. The data demonstrates positive outcomes such as improvements in absentee and tardiness rates, increased access to and utilization of on-site mental health services, and decreases in health care costs overall. However, most of the literature only focuses on the impact of just the SBHC and its staff as a single entity, or the role of the school guidance counselors in the identification of mental health issues and subsequent referral to external sources of support. What the current project seeks to demonstrate is how the integration of all stakeholders that have a high level of interaction with the individual students into a system of screening and referral will impact the frequency of identification and on-site mental health resource utilization.

**Rationale**

The first component of the proposed intervention relates to the incorporation of expanded screening for adolescent mental health needs. The current practices at the school site represent a fractured secondary level of intervention with little in the way of primary health promotion or prevention. Two conceptual frameworks provide scaffolding for this first arm, Miles, Espiritu, Waetzig, Horan, and Sebian’s (2009) *A Public Health Approach to Children's Mental Health*,
and the Multi-Tiered System of Support (California Department of Education, 2018a). The first of these, developed by Miles et al. (2009) places special emphasis in their framework on intervention which is divided into four categories (See figure 1). These can be described as Promoting, Re/Claiming, Preventing, and Treating. The first two items approach interventions from an optimization of positive mental health while the second two focuses on the reduction and measurement of mental health problems. Viewed in an additional context, Treating and Re/Claiming seek to provide targeted interventions when working with an identified mental health issue (similar to tertiary level intervention), while Promoting and Preventing (primary and secondary interventions) are not delivered within the context of an identified diagnosis.

The second framework chosen to guide the project development, the Multi-Tiered System of Supports (MTSS) is, by definition, “a framework that aligns Response to Instruction and Intervention with the California State standards and the systems necessary to ensure academic, behavior, and social success” (California Department of Education, 2018a). In the context of the proposed project, the concept is to align the existing supports within the school to address academic as well as emotional and behavioral struggles affecting the individual child. Response to Instruction and Intervention (RTI²) is the academic support system in place, while Positive Behavioral Interventions and Supports (PBIS) implements evidence-based behavioral interventions to improve social and emotional learning and decrease disruptive behavioral issues over time. MTSS is the overarching framework that aligns both support systems to address the whole child and optimize the resources within the academic setting.

The second component of the project seeks to incorporate a system of interprofessional collaboration (IPC) that streamlines the referral system by integrating a communication matrix and monthly interdisciplinary case review (ICR) meetings between the identified stakeholders.
The final framework identified for the purpose of guiding this element of the project is Levine and White’s (1961) Exchange Theory. The definition of organizational exchange is “any voluntary activity between two organizations which has consequences, actual or anticipated, for the realization of their respective goals or objectives” (Levine & White, 1961). This definition is useful as it is broad enough to include reciprocal or unidirectional exchange of needed resources, whether they are human resources, time, or knowledge and expertise. While each of the systems in which the identified stakeholders operate function independently to the degree of the defined organizational purpose, for the shared goal of addressing the needs and improving the outcomes of student mental health, the necessity for organizational exchange is paramount.

**Specific Aim**

By March 2019, implement an interprofessional protocol between the School Based Health Center, guidance counselors, and Coordination of Services Team (COST) director for the screening and referral of students in need of mental health services. By the end of the educational workshop on the use of the psychosocial screening tool, the participants [two family nurse practitioners (FNP), one licensed vocational nurse (LVN), one medical assistant (MA), health educator, the SBHC office manager, five guidance counselors, an assistant principal, and the COST director] will demonstrate an increase in knowledge of mental health literacy and screening capability as evidenced by improved post-intervention survey scores compared to pre-intervention scores. In addition, upon completion of the introduction to an interprofessional collaboration (IPC) referral flowchart and case review activity, the aforementioned participants will be able to identify the members of and the corresponding roles in the collaborative team, the process of referral, available resources, and the value of IPC activities. This will be measured by response comparison of the pre-intervention to the post-intervention combined quantitative and
qualitative survey. Follow up interviews will determine the number of students positively identified to be at risk for emotional or behavioral issues through the use of the tools and systems implemented.

**Section III: Methods**

**Context**

The stakeholders in this project are the SBHC staff consisting of two FNPs, one LVN, one MA, one health educator; and the office manager, and the school staff consisting of five guidance counselors, one school nurse, the COST director, the school principal, and three assistant principles. Each of these stakeholders acted in a participatory role in receiving education on the evidence-based mental health screening tool, the model for interprofessional collaboration and communication, and a preliminary protocol for case management.

**Intervention**

**Narrative of the Intervention**

Based on the determination of best practice and needs at the school system identified, a two-fold intervention to address the issues was developed. The first intervention was the introduction of and education on the use of a universal screening tool, the Youth Pediatric Symptom Checklist (PSC-Y) to be administered by the identified stakeholders during appropriate student encounters. The definition of appropriate student encounter differs based on the stakeholder. For example, the guidance counselor could utilize the tool when meeting with a student regarding academic struggles, new student intake, or during a brief impromptu-style encounter in which the student is seeking general or psychosocial support. Conversely, the SBHC staff could utilize the screening tool during new patient intake as well as periodically when a student presents for general health concerns. The PSC-Y is a validated screening tool that
has been utilized specifically in the school setting and is meant to be completed by the student (Massachusetts General Hospital, 2018), as compared to alternative screening tools designed for settings such as juvenile justice (See Appendix D for a copy of the PSC-Y tool). The PSC-Y was selected for this project based on several factors; it’s ease of use requiring only a 5th grade reading level, brief administration time of 10-15 minutes for 35 questions, and a paper and pencil format which eliminates the need for additional software or hardware. In addition, the school has unlimited free access to additional forms, scoring instructions, and the tool is translated into three languages: English, Spanish, and Portuguese. There is also a parent version of the tool, the standard PSC, which is translated into 13 additional languages (Massachusetts General Hospital, 2018).

The second intervention was the presentation of an interprofessional collaboration model with the accompanying introduction of a referral flow chart (See Appendix E) and interdisciplinary case review (ICR) form (See Appendix F). The purpose of this intervention was to increase the stakeholder’s knowledge of roles and responsibilities in student mental health care, to provide a visual reference tool to aid in streamlining the referral and follow up process, and to introduce the practice of a monthly ICR. Part of the referral process identifies mental health student interns, both from the University of San Francisco (USF) and California State University-East Bay (CSU-EB), that are present on campus each semester as a provider source to whom students can be referred for further evaluation and psychotherapy. Both of these interventions were delivered to the stakeholders through an in-person, hour-long workshop held on the SBHC campus location.

The project was presented over the course of two days. The first presentation was to the staff of the SBHC and COST director in the SBHC conference room, with all participants facing
the project lead and a television screen displaying the PowerPoint presentation. The second session was delivered to three guidance counselors, one assistant principal, and one CSU-EB intern in a classroom that held multimedia capabilities for the presentation. Binders were created and distributed to each of the stakeholders, each containing master copies of the PSC-Y screening tool in English and Spanish, a parent version of the PSC tool in English and Spanish, a scoring guide and key, an ICR form, the referral flowchart, and a website resource for future support. The screening tool scoring guide and key as well as the ICR form were created by the project lead specifically for this project. The binders were used during the presentations for the purpose of introducing and facilitating familiarity with the materials. A question and answer period was held in both presentations after initial information had been shared. Both parties were administered the survey questions before and after the presentations.

**Gap Analysis**

A system evaluation conducted over the course of several months as well as three informational interviews identified the existing patterns of mental health case management and stakeholder perceptions of needs. The thematic result of these interviews revealed that while the existing resources within this single site are well established and available to the student population, there is a fundamental inefficiency and lack of care coordination between vested parties. This has resulted in the underutilization of available mental health resources and support as well as a foundational under identification of students in need of intervention (See Appendix G for the Gap Analysis chart).

The first of these interviews was with the five guidance counselors who all attested to the fact that they encounter students on a regular basis that are in need of “some kind of help.” In addition, there was a general consensus that the group as a whole lacked a tool to conduct a
generalized mental health screening as well as what, if any, on-campus resources existed that are consistent and reliable. The second interview was with the COST director. The director, who by role definition is the liaison for services between behavioral and academic resources, identified several gaps in the current system of case management. Of these, the most pertinent are the lack of knowledge of existing on-campus resources, lack of established communication processes between vested parties, and several points of referral to the program that further disjoint care processing and planning.

The third informational interview was with one of the two on-site SBHC FNPs. The FNP explained the current level of and tools used for mental health screening but also stated that as a provider, they themselves do not render any type of mental health service. Instead, the procedure relies on a referral to a community-based provider that comes to the campus for counseling services. Currently, that individual has left the practice and the community-based organization has not yet provided a replacement. The FNP also stated that they were aware of the school resources, such as COST meetings in which cases are discussed, but states that they have never been approached about participation or collaboration.

Underlying all of the interviews was the statement of need for an on-site mental health provider presence. Currently, the school site does have a psychologist on staff; however, this individual’s caseload is focused on the special education student population. Although the mental health student interns previously mentioned have a presence on campus each semester, none of the stakeholders were aware of them as a resource or of their scope and capabilities as providers.
Timeline

The assessment of the project setting began over the course of the 2018 fall semester, during the project lead’s final clinical rotation. Additional site and current practice evaluation occurred in the first two weeks of January 2019 through informational interviews, with ongoing stakeholder input throughout project development. Additional project markers were the development of educational materials and presentations, pre- and post-intervention surveys, delivery of the intervention, and data synthesis provided to the stakeholders and Doctor of Nursing Practice (DNP) committee (See Appendix H for the Gantt Chart).

Responsibility and Communication

The project lead was the primary conduit for communication throughout the project development and implementation. Ongoing stakeholder communication was held primarily via email. Periodic updates and inquiries were made to the DNP chair and committee members on an as needed basis throughout the process via email, phone, and Zoom sessions (See Appendix J).

Strengths, Weaknesses, Threats, and Opportunities

Through the comprehensive site assessment, informational interviews, and analysis of similar local and national programs, a Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis was conducted (See Appendix K).

The strengths of this project lie in the existing infrastructure at the chosen school site. The pre-existence of an SBHC on-campus that is adequately staffed with FNPs, a school nurse, and administrative support staff provides primary level care that is accessible without the need for student transportation. In addition to the permanent staff, the school site also utilizes external mental health provider resources through collaboration with the USF and CSU-EB graduate student interns that can provide services to referred students. There is already a formula in place
for monthly COST meetings that incorporate the exchange of mental health related information. There is strong stakeholder support as well as an established model for wrap-around services within the organization.

Weaknesses include the varying levels of educational backgrounds and experience of the target audience, as well as a fractured and inconsistent delivery of existing services. Additionally, the site lacks a permanent mental health provider specifically dedicated to the needs of students on a population level. Lastly, because of the demographics of the majority Hispanic student population, there is a potential for strong cultural barriers to addressing mental illness. In conjunction with this, there is also a high immigrant population that statistically presents low rates of seeking mental health care (Bauldry & Szaflarski, 2017).

Opportunities, building on the many strengths of this project, are that this site is well positioned to develop a culture of primary mental health care and become a model IPC organization for similar sites. The longer term outcomes of primary and secondary level intervention to be accomplished by this endeavor, while outside the scope of this project, provides the opportunity to develop a data set from which to establish stronger policy at the district level.

Threats to the project reside in the uncertainty many school districts face in the form of available funding. Both school-specific services as well as community resources could potentially be impacted by financial instability related to federal or state budget re-allocation or cuts. There is also the risk of potential lack of family support and student engagement related to cultural bias and individuals who fear stigmatization from seeking services.
Cost Benefit/Avoidance Analysis

Many factors contribute to a student missing school, however, it is well documented in the literature that untreated mental health or behavioral disorders is a significant cause of chronic absenteeism (Erickson & Able, 2013; Gall et al., 2000). This is an issue facing most school districts and directly equates to the loss of funding due to student absences. Chronic absenteeism is defined as any student that is enrolled for 30 days or more and is absent 10% or more days of the expected attendance (California Department of Education, 2018b). This equates to 18 or more days absent in a school year. Like many states, California is allocated school budget funding based on student attendance. The calculation for determining the amount of funding a school is given per student is based on the annual expenditure cost per average daily attendance (ADA) divided by the total number of school days in an academic year. In the case of the Hayward Unified School District, the figures are as follows (California Department of Education, 2018b):

- Current expense per ADA - $12,916.00
- Divided by 180 school days - $12,916.00/180 = $71.75
- Cost per student per day - $71.75

For the 2017-2018 school year, the high school selected for project implementation reported a chronic absenteeism rate of 27.6%. This equates to 431 students that missed at least 18 days of school, for any reason, excused or unexcused. While the total absenteeism rate cannot be singularly attributed to a mental health disorder, the percentage of adolescents that are affected according to NAMI (2019) of 20% can be applied to the local data to calculate an estimated number of students who are chronically absent due to a mental health disorder. When applying this rationale, the number of students this represents would be 86.2, with a cost per student of
$71.75 per day, resulting in a loss of funding totaling $6,184.85 per day (See Appendix L). With the implementation of a universal psychosocial screening tool and a streamlined process for referral to identified on-site resources, a modest goal of a 10% reduction in the chronic absentee rate due to mental health disorders would result in a significant amount of funding retained for the school site.

**Project Budget and Return on Investment**

For the purposes of increasing the sustainability of this project, the materials selected for use in mental health screening and IPC were chosen specifically because they are free of charge and easily accessible and reproducible. In addition, the resources to support the use of the screening tool (i.e. website) are free of charge as well. Any and all costs involved in the development of the project and its materials have been solely incurred by the project lead.

The sustained costs for the program would be modest, represented by expenses incurred for the reproduction of screening forms and other printed materials, all of which could realistically be incorporated into existing budgets. As mentioned previously in the cost benefit/avoidance analysis, the return on investment can be realized in the retention of funding related to a direct decrease of chronic absenteeism in those students who have received mental health assistance. Even in light of similar implementation of the PSC-Y screening tool demonstrating a reduction in absenteeism of 50% (Gall et al., 2000), an applied conservative goal of a 10% reduction in chronic absenteeism would amount to a potential annual funding retention of $11,106.90 (See Appendix M).

**Study of the Interventions**

The goals of the proposed project aimed to provide increased knowledge in evidence-based mental health screening and IPC skills for the target audience. On a more granular level,
the overarching aim was three-fold; to streamline the assessment of at-risk students through the incorporation of a universal mental health-screening tool to be utilized by the aforementioned vested parties, to effectively administer training sessions in the use and evaluation of the screening tool and the system of communicating results, and develop and conduct an impact evaluation of a case management interprofessional approach to student mental health needs through the incorporation of monthly ICR team meetings.

Tools and supplemental materials were selected or designed to be suitable for use by medical and non-medical staff. The PSC-Y tool was chosen specifically so that the student could self-administer, thereby not requiring as much time on the part of the staff. Additionally, a custom scoring guide and key was developed to facilitate the ease of use for all parties.

**Measures**

Measurement of knowledge improvement in the context of mental health literacy, screening methods, and fundamental concepts of IPC was evaluated using pre- and post-presentation surveys (See Appendix N). Both surveys are 5-point Likert scale questionnaires with additional open-ended qualitative items contextually appropriate to the learning outcomes. The mental health knowledge and screening readiness questionnaire consists of eight statements to which the participant selects from *strongly disagree, disagree, neutral, agree, or strongly agree*. This questionnaire was derived and modified from an instrument, the Mental Health Literacy Scale, which demonstrated good internal and test-retest reliability (O’Connor & Casey, 2015).

The format of the IPC knowledge and perception survey is similar and consists of four statements. Two open-ended questions were used to determine participants’ self-described readiness in addressing mental health needs of students and their perceived role and level of
participation in an interdisciplinary team. These qualitative questions were administered pre- and post-intervention and a third open-ended question was given post-IPC education to assess the participants’ perceived value of the ICR and collaborative model. Finally, a stakeholder interview was conducted approximately two months post-intervention to determine how many students had been screened and, subsequently, positively identified as appropriate for referral.

Analysis

Pre- and post-presentation surveys were conducted on-site with adequate time allocated to encourage greater participation. Raw data results were manually extracted and analyzed using Microsoft Excel to evaluate pre- and post-presentation mean score differences in ordinal-level variables quantified on the Likert scale questionnaires. A paired T-test was used to determine significance in the differences with a confidence interval of 95% and significance level of < 0.05. Qualitative data from the three open-ended questions was manually transcribed and evaluated for thematic content.

Ethical Considerations

All of the participatory subjects in this project have done so of their own volition. A volunteer consent form was developed to inform the subjects of their rights related to their participation. This project was approved by the University of San Francisco (USF) School of Nursing and Health Professions Doctor of Nursing Practice program as a quality improvement project and therefore did not necessitate institutional review board (IRB) approval per university policy.

Two of the core values outlined in the Jesuit tradition that are embodied in the intent of this project are, “learning as a humanizing, social activity rather than a competitive exercise;” and “diversity of perspectives, experiences and traditions as essential components of a quality
education in our global context.” This project sought to integrate a greater understanding and appreciation for the importance of the interdisciplinary roles and responsibilities involved in the care of students struggling with emotional or behavioral issues by bringing together the diversity of specialty backgrounds. By nature of this endeavor, one of the purported outcomes has been to eliminate the siloed perceptions often held by individuals from diverse specialties and departments within the same organization.

Provision eight of the American Nurses Association (ANA) code of ethics outlines the necessity of nurses to collaborate with other health professionals in order to protect human rights, promote health diplomacy, and reduce health disparities (American Nurses Association, 2015). As identified above, the interdisciplinary care model is evidenced to be the most efficacious in treating the whole patient and streamlining communication between providers. By incorporating interdisciplinary collaboration into the quality improvement focus of enhanced mental health screening, this project has aimed to foster the spirit of teamwork into professional practice and provide more comprehensive care for student mental health issues that are often overlooked.

**Section IV: Results**

The participants in the project delivery varied from what was originally anticipated. For the SBHC staff, only one FNP was present as the second FNP is moving on to another professional opportunity. Also, a second health educator from another district high school was in attendance. This resulted in the integration of the binder and education materials into a second high school as the providers rotate between sites and now have the presented resources at both. An additional unanticipated change occurred in the second presentation with the absence of two
of the guidance counselors and the addition of one assistant principal and one student intern from CSU-EB.

The first presentation provided seven participants: one FNP, one LVN, one MA, two health educators, the SBHC office manager, and the COST director. The second presentation totaled five participants: three guidance counselors, one assistant principal, and one CSU-EB graduate student intern. All participants (N = 12) completed the pre- and post-presentation quantitative surveys, however, the completion of the pre- and post-qualitative questions suitable for evaluation produced an average 69% response rate.

**Data Analysis**

Pre-intervention IPC survey scores among all participants (N = 12) indicated limited awareness of available mental health provider resources, referral sources and processes, and the roles of available stakeholders (M = 3.21; SD = 0.11). The analysis of score changes between the pre/post IPC questionnaires demonstrated an increase in knowledge (M = 4.1; SD = 0.21) with an average mean score difference of 0.90 for all four questions, however the increased scores from question one did not reach statistical significance (p = 0.056) (See Appendix P). The most significant improvement in score was for question number four, “I am aware of a process to make appropriate referrals when warranted”, in which there was in increase in mean score of 1.08 (CI -1.90, -0.28; p = 0.015). This indicates a shift in average response from “neutral” to “strongly agree” with the statement.

The pre-intervention mean score average (M = 3.02; SD = 0.17) for questions one through four of the mental health literacy and screening questionnaire indicates a “neutral” position in the participants as it pertains to their awareness of tools to identify at-risk students and confidence in mental health screening. Comparison analysis resulted in overall increases in
knowledge for these first four questions with an average mean score difference of 1.06 (p < 0.04) with three of the four responses increasing one point or greater.

In contrast to these results, the last four questions of the mental health literacy questionnaire, which were scored on a reverse scale, resulted in a modest decrease in scores with an average mean score drop of 0.17 (p > 0.30). The content of these items relate to the participants perceptions of mental health disorders in adolescents and went from a pre-intervention mean score average of 4.12 (SD = 0.56) to a post-intervention average of 3.95 (SD = 0.60). Even with this difference, based on the results of the t-test, none of the differences in mean score reached statistical significance (See Appendix Q).

Analysis of responses of the qualitative pre/post survey questions consisted of manual transcription and evaluation and resulted in the identification of key themes (See Appendix R). Themes were defined by the project lead using key terms that were consistent between similar participant responses. Non-response, single word responses, and illegible responses were excluded from analysis. The pre-intervention question assessing participant perception of personal interprofessional collaboration involvement generated three themes; 1) heavily engaged (43%), 2) somewhat or marginally engaged (43%), and 3) low level of involvement (14%). This question yielded a 58% response rate. The individual responses also denote the reasons behind the participant’s perception. The post-IPC presentation question, “What do you see the value being, if any, of the incorporation of an Interprofessional Case Review (ICR) into a team-based approach to caring for students with emotional or behavioral issues?” delivered a 75% response rate. The evaluation of responses revealed identified value as; 1) streamlining of processes (44%), 2) a whole student approach to care (22%), and 3) enhanced identification of appropriate/relevant interventions (33%).
The mental health literacy and screening readiness question resulted in a 67% and 75% response rate for the pre- and post-intervention surveys, respectively. Participants were asked to describe their readiness to address mental health-related issues in the student population. The pre-intervention survey response themes were, 1) not ready/need more guidance or training (62.5%), 2) somewhat ready (12.5%), and 3) some experience and preparation/fairly confident (25%). The post-intervention survey resulted in overall increased confidence with emerging themes based on 1) training and use of the screening tool (67%), 2) knowledge of referral resources (11%), and 3) unspecified reason for improved readiness (22%).

**Participant Feedback**

During the presentation to the SBHC staff, concerns were raised regarding several aspects of the PSC-Y administration. The first of these was regarding level of training required to score the screening tool. The second issue was expressed by the FNP, who was concerned about the time requirement to administer and score the tool. The FNP stated that he could not see how it would be possible for him to have each patient complete the tool during his encounters as he was only allotted 15 minutes per appointment. The project lead gave further explanation that the tool was specifically chosen to address both of these concerns. As the PSC-Y is not a diagnostic tool, it is appropriate for use by medical and non-medical personnel alike, with a single threshold score indicating whether the student is at risk for an emotional or behavioral issue. Because of this, the screen could be administered during intake or at any other time with SBHC staff and subsequently referred for a follow up appointment with the FNP if appropriate. This latter point addresses the concern of the FNP as it demonstrates that the designated appointment time will not be impacted by the administration of the tool.
Stakeholder interviews conducted during the first week of May 2019 revealed the number of times the PSC-Y screening tool had been used and how many students had been positively identified as being at an elevated risk for emotional or behavioral issues. The first of these interviews was with the guidance counselors who, in a general consensus, stated that they had not used the screening tool with their student populations. Several factors contribute to this; the focus on their role as academic advisors left little time to address emotional or behavioral issues, the timing within the school year bringing more emphasis on the academic role, and not being the first point of contact for referral from other faculty of students with suspected issues.

The second stakeholder interview was with the office manager of the SBHC. She indicated that the staff had utilized the PSC-Y with 3 students, resulting in 3 positive identifications and subsequent referrals to the COST director. It was noted during the conversation that, with the end of the school year approaching, fewer students were presenting for assessment of issues often seen in the classroom setting. It was also noted that with the anticipated integration of additional behavioral health support (PMHNP interns), a more robust screening program would be feasible in the fall, as the infrastructure of behavioral health support will be better established.

Unanticipated Outcomes

As part of the open question and answer period of the presentation, several participants were surprised to know that mental health graduate interns, such as the project lead, are on-site and available as referral sources each semester. This led to a discussion of need for a Psychiatric Mental Health Nurse Practitioner (PMHNP) intern within the SBHC itself and the willingness of the FNP to precept future students. The project lead followed up with the USF director of clinical placement for the nurse practitioner program in order to establish a memorandum of
understanding (MOU) between the university and the community agency that operates the SBHC.

Another outcome that came of the discussion was between the project lead, the health educator, and COST director. Based on the model presented for IPC, it was decided that the COST director would come to the SBHC on an as needed basis to meet with students that were appropriate for referral and who expressed the desire to gain additional support. This was after the project lead described the importance of a “warm hand off” in which the referring party directly introduces the student to the COST director in an effort to minimize discomfort and encourage student engagement.

As a result of the additional health educator participant from a different school site at the SBHC presentation, the training and tools have been expanded to an additional SBHC within the same school district. This was made clear when the SBHC staff clarified that they alternate between the two sites and therefore, have all been privy to the information presented. Further data collection would be required to establish the impact this program will have on the second school site.

One final outcome that was confirmed during the discussion period was the commitment of the FNP to allocate a one-hour period of time each month in order to attend the bi-weekly COST meetings. This is a significant step in increasing collaboration as the FNP had stated previously that his time was strictly accounted for during the days he provides care at the SBHC.

Section V: Discussion

Summary

The objectives of this project were stated to be the successful introduction of a universal mental health screening tool and IPC model through which knowledge, preparedness, and
collaboration willingness of the participants would be demonstrably improved. These objectives have been accomplished as demonstrated through the overall improvements in mental health knowledge and screening readiness, identification of referral resources, and reported value of collaboration and IPC activities. The additional aim of increasing the number of students positively identified to be at an elevated risk for emotional or behavioral issues was demonstrated with modest success.

The needs within this site of a universal mental health screening tool and defined system of referral and collaboration were consistently identified, both through the project lead’s experiential observation as well as stakeholder input. The strong support from all identified stakeholders in the project interventions and training was the primary factor that contributed most to the successful implementation and intended outcomes. The fundamental element that lends to the sustainability of the project is the introduction of the necessary components for an integrated system of mental health screening and service delivery that brings together the support network that is present at the project site. The strength of support that these professionals present individually will only increase with this implementation of streamlined processes, universality of screening tools and protocols, and shared knowledge and expertise within a structured case review and management framework.

The dissemination of the project results will be utilized to broaden the relationship between the USF PMHNP internship program and the project site. As stated previously, the process of establishing an MOU between USF and the community mental health agency that operates the SBHC has been initiated. The intent of this relationship has several positive implications, the first of which is to provide continued university support to the community in which the project has been implemented. This will be accomplished through the newly created
clinical site within the SBHC for USF PMHNP graduate interns who will then be a consistent on-campus presence, capable of delivering additional assessment, psychotherapy support, and clinical expertise. Continuity of access is mutually beneficial, as the project site has served as one of a very few clinical sites for the PMHNP interns in which to complete the hours required for the pediatric population. With the addition of the SBHC as a clinical learning site, the opportunities for scholarship and application of therapeutic interventions is substantially increased.

As advanced practice registered nurses (APRN) specializing in mental health, the focus must expand beyond the practitioners’ own patient roster. The lens must be widened to one of promotion and prevention with an emphasis on health maintenance, not just treatment or remediation, at a population level. For this particular site, the population represents a vulnerable group with increased risk for emotional or behavioral problems based on multiple indicators: adolescents, minority, immigrant (several of whom are undocumented), and at or below the poverty line. This project represents a model from which additional endeavors to mitigate the harm of poor mental health could be established, placing the PMHNP in an advantageous position to be the catalyst for change and improved outcomes.

**Interpretation**

Guided by the conceptual framework that integrates the theories of a public health approach, an integrative Multi-Tiered System of Support, and the interdisciplinary model of mutually beneficial exchange, the findings of the interventions have demonstrated improvements in the project objectives pertaining to participants knowledge and perception of mental health screening and IPC. The analysis of responses confirms the achievement of stated aims of the
SCHOOL-BASED MENTAL HEALTH SCREENING

project, with the measureable objectives, both quantitative and qualitative, having demonstrated statistically significant increases from baseline assessment scores.

The exception to this was the four Likert scale questions pertaining to participant perceptions of mental health and mental health literacy, each of which resulted in a decrease in scores. It should be noted that none of the decreases in mean score differences were statistically significant, however, it does warrant evaluation into potential causal factors. One possible reason for the unintended results could be insufficient time spent in the education of the participants on the specific topics assessed within the survey. This is noteworthy in respect to future educational interventions and evaluations and additional steps are recommended to ensure adequate participant understanding of the principles of mental health literacy in the target population.

The goal of increasing the identification of at-risk students was modestly successful, demonstrating efficacy in a single environment, the SBHC. As stated above, some of the lack of utility for stakeholders such as the guidance counselors could possibly stem from previously identified barriers such as lack of time within the context of the student encounter. Similarly, timing of the project implementation appears to have had an impact on the underutilization of the screening tool. During the latter months of the academic year, a shift in focus for many within the school staff occurs with the emphasis being placed on ensuring student advancement to the next grade level, college application guidance, and graduation. This significantly reduces the opportunities for engagement with students on matters pertaining to psychosocial well being for these stakeholders.

The overall successful results of this project in this site have direct implications for future scholarship and evidence-based practice improvement. With the introduction of PMHNP interns to the SBHC, a consistent, clinically relevant partnership has been established as an environment
for sustaining and broadening the interventions based on the model provided by the project lead. It is recommended that the incorporation of a pre-clinical placement orientation of the projects processes and objectives be delivered to incoming PMHNP interns as this would maximize understanding of the intern’s role in providing on-going support for the behavioral health needs of the student population. This would also relieve the sites and preceptors of any training burden and allow the interns to immerse in the clinical setting.

Future steps to be taken involve the incorporation of the screening tool on a school-wide, annual basis, which would elevate the level of intervention from secondary to primary, thereby advancing population health promotion and education. This presents additional Doctoral-level project opportunities for the PMHNP intern while simultaneously reinforcing the relationship between USF and it’s community partner by providing on-going support and expansion of the initial project.

**Limitations**

The small sample size (N=12) limits the generalizability of the project results. In addition to this, a relatively low response rate to the qualitative questions (69%) further impacts sample size bias in the reliability of survey results. Limitations pertaining to the project lead’s available timeline restricted the ability to incorporate additional data collection related to impact of the project implementation. The lack of these data points such as a longitudinal evaluation of the amount of students screened and percentage identified as at-risk, number of referrals, and tracking of impact on absenteeism rates, limit the robustness and iteration of the current project.

**Conclusion**

With so many physical and psychosocial indicators of well being so intimately connected to positive mental health, the emphasis of early and effective screening and intervention are
advancing to the forefront in the design of population-focused mental health programs and delivery systems. For the adolescent population, the reality that emotional and behavioral issues are often linked to an undiagnosed mental health disorder only makes the case stronger for the need of efficient access to essential services as this can have long lasting implications on future costs, both health and financial.

This project was successful in capitalizing on existing resources that are sufficient in their own right, but collectively, provide the increased potential of improving outcomes in the lives of the students they serve. The relationship between the project site and USF provides a mutually beneficial exchange: the PMHNP graduate intern is able to participate and contribute to the improvement of pediatric mental health through direct care and practice improvement projects, and the site receives consistent support for it’s students and staff. Through the use of streamlined surveillance, communication, referral, shared expertise, and resources, the partnership between the SBHC, mental health graduate interns (such as the USF PMHNPs), and the support staff embedded within the school itself have the opportunity to become a model system of a mental health medical home for others to follow.

Section VI: Funding

Any and all costs involved in the development of the project and its materials have been solely incurred by the project lead, no external funding was obtained.
Section VII: References


lay=forms


Schapiro, N., Gutierrez, J., Blackshaw, A., & Chen, J. (2018). Addressing the health and mental health needs of unaccompanied immigrant youth through an innovative school-based


Intervention Model for Children’s Mental Health

From Miles, Espiritu, Waetzig, Horan, and Sebian’s (2009) *A Public Health Approach to Children’s Mental Health*
Figure 2

*Multi-Tiered System of Supports*

From The California Department of Education (2018a).
Appendix A

DNP Statement of Non-Research Determination Form

**Student Name:** Tiffany Gishizky

<table>
<thead>
<tr>
<th><strong>Title of Project:</strong> School Based Mental Health Screening: Improving Outcomes Through Communication and Collaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A) Aim Statement:</strong> By March 2019, implement an interprofessional protocol between the School Based Health Center, guidance counselors, and Coordination of Services Team (COST) for the screening and referral of students in need of mental health services.</td>
</tr>
<tr>
<td><strong>B) Project Goals:</strong></td>
</tr>
<tr>
<td>1. Streamline the assessment of at-risk students through the incorporation of a universal mental health-screening tool to be utilized by the aforementioned vested parties.</td>
</tr>
<tr>
<td>2. Administer training sessions in the use and evaluation of the screening tool and the system of communicating results to the team.</td>
</tr>
<tr>
<td>3. Develop a case management interprofessional approach to student mental health needs through the incorporation of bi-weekly team meetings.</td>
</tr>
<tr>
<td><strong>C) Outcome Measures:</strong></td>
</tr>
<tr>
<td>1. Quantitative changes in mental health literacy, perception, and knowledge in screening and interprofessional collaboration will be measured through pre- and post-intervention surveys.</td>
</tr>
<tr>
<td>2. Qualitative thematic changes will be gathered and evaluated pre- and post-intervention from open-ended questions pertaining to knowledge and perception of interprofessional roles and responsibilities.</td>
</tr>
</tbody>
</table>

To qualify as an Evidence-based Change in Practice Project, rather than a Research Project, the criteria outlined in federal guidelines will be used:
(https://answers.hhs.gov/ohrp/categories/1569)
This project meets the guidelines for an Evidence-based Change in Practice Project as outlined in the Project Checklist (attached). Student may proceed with implementation.

☐ This project involves research with human subjects and must be submitted for IRB approval before project activity can commence.

Comments:

**EVIDENCE-BASED CHANGE OF PRACTICE PROJECT CHECKLIST** *

**Instructions:** Answer YES or NO to each of the following statements:

<table>
<thead>
<tr>
<th>Project Title:</th>
<th>YES</th>
<th>NO</th>
</tr>
</thead>
<tbody>
<tr>
<td>The aim of the project is to improve the process or delivery of care with established/accepted standards, or to implement evidence-based change. There is no intention of using the data for research purposes.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>The specific aim is to improve performance on a specific service or program and <strong>is a part of usual care</strong>. ALL participants will receive standard of care.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>The project is <strong>NOT</strong> designed to follow a research design, e.g., hypothesis testing or group comparison, randomization, control groups, prospective comparison groups, cross-sectional, case control). The project does <strong>NOT</strong> follow a protocol that overrides clinical decision-making.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of established and tested quality standards and/or systematic monitoring, assessment or evaluation of the organization to ensure that existing quality standards are being met. The project does <strong>NOT</strong> develop paradigms or untested methods or new untested standards.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>The project involves implementation of care practices and interventions that are consensus-based or evidence-based. The project does <strong>NOT</strong> seek to test an intervention that is beyond current science and experience.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>The project is conducted by staff where the project will take place and involves staff who are working at an agency that has an agreement with USF SONHP.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>The project has <strong>NO</strong> funding from federal agencies or research-focused organizations and is not receiving funding for implementation research.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>The agency or clinical practice unit agrees that this is a project that will be implemented to improve the process or delivery of care, i.e., <strong>not</strong> a personal research project that is dependent upon the voluntary participation of colleagues, students and/ or patients.</td>
<td>Yes</td>
<td></td>
</tr>
<tr>
<td>If there is an intent to, or possibility of publishing your work, you and supervising faculty and the agency oversight committee are comfortable with the following statement in your methods section: <em>This project was undertaken as an Evidence-based change of practice project at X hospital or agency and as such was not formally supervised by the Institutional Review Board.</em></td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>
**ANSWER KEY:** If the answer to **ALL** of these items is yes, the project can be considered an Evidence-based activity that does **NOT** meet the definition of research. **IRB review is not required. Keep a copy of this checklist in your files.** If the answer to **ANY** of these questions is **NO**, you must submit for IRB approval.

*Adapted with permission of Elizabeth L. Hohmann, MD, Director and Chair, Partners Human Research Committee, Partners Health System, Boston, MA.*

**STUDENT NAME (Please print):**

___________________ Tiffany Gishizky ________________________________

___________________ Tiffany Gishizky DATE_1/22/2019_ Signature of Student

**SUPERVISING FACULTY MEMBER (CHAIR) NAME (Please print):**

________________________________________________________________________

________________________________________________________________________ DATE_______ Signature of Supervising Faculty Member (Chair)
Appendix B

Organizational Support Letter

January 8, 2019

To Whom It May Concern:

This is a letter of support for Tiffany Gishizky to conduct her Doctor of Nursing Practice capstone project at Tennyson High School in Hayward, California. Ms. Gishizky has the administration’s permission to pursue her work over the course of the Spring of 2019 semester and to use the name of Tennyson High School in her final manuscript and capstone presentation.

Respectfully Submitted,

[Signature]

Veronica Estrada
Tennyson High School Principal
## Appendix C

### Table 1

**Evaluation Table**

<table>
<thead>
<tr>
<th>Citation</th>
<th>Design/ Strength</th>
<th>Sample/ Setting</th>
<th>Measurement</th>
<th>Data Analysis</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Davis et al. (2005)</td>
<td>Case Report</td>
<td>Multiple student composite case study/ ICR -SBHC</td>
<td>N/A</td>
<td>N/A</td>
<td>IPC resulted in long-term follow up with student. Improved communication and delegation of identified needs</td>
</tr>
<tr>
<td>Donahue et al (2015)</td>
<td>QI Project</td>
<td>Year 1: students in grades 3, 6, 9 (N=313) Year 2: students in grades 3, 4, 6, 7, 9, 10 (N=631) Small public school district in Connecticut</td>
<td>BASC-2 BESS screening instrument to test emotional distress &amp;/or behavioral concerns</td>
<td>t score with &lt; 60 = low risk, 61-70 = elevated risk, &gt;71 = high risk Year 1: 10% (N=30) students identified (20% of whom had not been referred previously) Year 2: 9% identified Overall increase in newly recognized students</td>
<td></td>
</tr>
<tr>
<td>Erickson &amp; Abel (2013)</td>
<td>Program Evaluation</td>
<td>High school students over a 10-year implementation (N=4,650) Single high school in Minnesota</td>
<td>RADS-2 depression screening instrument</td>
<td>Comparison data from the Minnesota Student Survey from 2001 to 2010</td>
<td>School specific decreases; 9th grade – reported depression (14% to 12%) and suicide attempts (4% to 1%). 12th grade – reported depression (11% to 5%) and suicide attempts (3% to 2%).</td>
</tr>
<tr>
<td>Gall et al. (2000)</td>
<td>QI Project</td>
<td>Adolescents seen at a high school SBHC (N=383) Public high school in small northeastern US city</td>
<td>Youth Pediatric Symptom Checklist (PSC-Y)</td>
<td>Chi-square test and ANOVA. Statistical significance – p &lt; 0.05</td>
<td>14% of students positively identified (N=52). Subsequent MH referral resulted in decreased absences by 50% and tardiness by 25% at two month follow up</td>
</tr>
<tr>
<td>Guo et al. (2008)</td>
<td>Longitudinal quasi-experimental time-series repeated</td>
<td>Four SBHC intervention and two matched non-SBHC school districts</td>
<td>Child and parent HRQOL surveys and Medicaid</td>
<td>ANCOVA to assess health costs and regression analysis for</td>
<td>SBHC users access to MH services increased 5.6% and 5.9% (urban and rural</td>
</tr>
<tr>
<td>Study Title</td>
<td>Study Type</td>
<td>Level</td>
<td>Quality</td>
<td>Study Design/Population</td>
<td>Data Collection</td>
</tr>
<tr>
<td>-------------------------------------</td>
<td>-------------------------------------</td>
<td>-------</td>
<td>---------</td>
<td>--------------------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>Hardy (1996)</td>
<td>Qualitative Case Study</td>
<td>V</td>
<td>A</td>
<td>Three SBHC</td>
<td>31 open-ended interviews with 24 stakeholders, direct experiential observation</td>
</tr>
<tr>
<td>Schapiro et al. (2018)</td>
<td>Exploratory study</td>
<td>V</td>
<td>A</td>
<td>Retrospective chart review of unaccompanied immigrant youth (UIY) (N=56) SBHC located in a high school in Alameda County</td>
<td>Data extraction from screening tools for depression, substance use, and number of follow up visits</td>
</tr>
<tr>
<td>Wilson et al. (2009)</td>
<td>Clinician Experience</td>
<td>V</td>
<td>B</td>
<td>Introduction of Mental health screening tool based on the medical triage model</td>
<td>N/A</td>
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</tbody>
</table>
Youth Pediatric Symptom Checklist (PSC-Y)

Please mark under the heading that best fits you:

<table>
<thead>
<tr>
<th></th>
<th>Never</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Complain of aches or pains</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Spend more time alone</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Tire easily, little energy</td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Fidgety, unable to sit still</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Have trouble with teacher</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Less interested in school</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Act as if driven by motor</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Daydream too much</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Distract easily</td>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Are afraid of new situations</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Feel sad, unhappy</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Are irritable, angry</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Feel hopeless</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Have trouble concentrating</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Less interested in friends</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Fight with other children</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17. Absent from school</td>
<td>17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18. School grades dropping</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19. Down on yourself</td>
<td>19</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
20. Visit doctor with doctor finding nothing wrong 20 _______ _______ _______

21. Have trouble sleeping 21 _______ _______ _______

22. Worry a lot 22 _______ _______ _______

23. Want to be with parent more than before 23 _______ _______ _______

24. Feel that you are bad 24 _______ _______ _______

25. Take unnecessary risks 25 _______ _______ _______

26. Get hurt frequently 26 _______ _______ _______

27. Seem to be having less fun 27 _______ _______ _______

28. Act younger than children your age 28 _______ _______ _______

29. Do not listen to rules 29 _______ _______ _______

30. Do not show feelings 30 _______ _______ _______

31. Do not understand other people’s feelings 31 _______ _______ _______

32. Tease others 32 _______ _______ _______

33. Blame others for your troubles 33 _______ _______ _______

34. Take things that do not belong to you 34 _______ _______ _______

35. Refuse to share 35 _______ _______ _______

Appendix E

Figure 3

Referral Flowchart
Appendix F

Interdisciplinary Case Review Form

<table>
<thead>
<tr>
<th>Student Name:</th>
<th>Grade:</th>
<th>Assigned Counselor:</th>
<th>Date:</th>
</tr>
</thead>
</table>

Presenting Issues/Areas of Concern:

- Medical
- Mental Health (i.e. behavioral, mood, substance use)
- Psychosocial
- Academic

Changes from Previous Reporting

Recommendations

Plan of Care (include medical or MH interventions, referrals to be made, education/risk reduction interventions, and plan to meet with student)

Date for ICR follow up:
<table>
<thead>
<tr>
<th>Attendee Name and Title</th>
<th>Signature</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
<td></td>
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<td></td>
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</tr>
</tbody>
</table>
Appendix G

Table 2

*Gap Analysis*

<table>
<thead>
<tr>
<th>Best Practice</th>
<th>Best Practice Strategies</th>
<th>How the site practices differ from Best Practices</th>
<th>Barriers to Best Practice Implementation</th>
<th>Will implement Best Practice (Yes/No, why not?)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standardized Adolescent Mental Health Screening and IPC</td>
<td>Collaboration between SBHC and School staff for MH case management</td>
<td>Siloed stakeholder activities</td>
<td>Historical lack of focused collaboration</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Standardized MH Screening tool</td>
<td>Absence of screening tool used by stakeholders</td>
<td>Percieved lack of time and external resources for follow-up</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Table 3

_Gantt Chart_

<table>
<thead>
<tr>
<th>Project Event</th>
<th>2018</th>
<th>2019</th>
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</thead>
<tbody>
<tr>
<td>A: Obtain Stakeholder Input</td>
<td>2 weeks</td>
<td></td>
</tr>
<tr>
<td>B: Needs Assessment and Evidence Evaluation</td>
<td>1 month</td>
<td></td>
</tr>
<tr>
<td>C: Create Educational Materials</td>
<td></td>
<td>3 weeks</td>
</tr>
<tr>
<td>D: Create pre/post Training Survey</td>
<td></td>
<td>2 weeks</td>
</tr>
<tr>
<td>E: Construct Binders for Stakeholders</td>
<td></td>
<td>2 weeks</td>
</tr>
<tr>
<td>F: Conduct training at SBHC</td>
<td></td>
<td>1 day</td>
</tr>
<tr>
<td>G: Conduct training for School Staff</td>
<td></td>
<td>1 day</td>
</tr>
<tr>
<td>H: Data Analysis and rough draft</td>
<td></td>
<td>3 weeks</td>
</tr>
<tr>
<td>I: Final Paper</td>
<td></td>
<td>1 month</td>
</tr>
<tr>
<td>J: Prepare Presentation</td>
<td></td>
<td>3 weeks</td>
</tr>
<tr>
<td>K: Present</td>
<td></td>
<td>1 day</td>
</tr>
</tbody>
</table>

**Project Events:**
- A: Obtain Buy-in and conduct needs assessment with THS counselors
- B: Synthesize evidence to demonstrate project need and best practice
- C: Create master forms: screening tool scoring and ICR meetings
- D: Assemble outcome measure tools: quantitative scale assessment/qualitative questionnaires
- E: Assemble binders containing all master forms to be given to stakeholders
- F: Conduct MH screening and IPC training to SBHC staff and COST director
- G: Conduct MH screening and IPC training to guidance counselors and support staff
- H: Evaluate data and submit rough draft of final project by March 15th to Committee for review
- I: Write Final Manuscript and Submit to USF Repository
- J: Prepare final slideshow to be presented to committee during the first week of May
- K: Present DNP project to Committee
Appendix I

Work Breakdown Structure

1. School-Based Mental Health Screening: Improving Outcomes Through Interprofessional Communication and Collaboration

1.1. Project Initiation

1.1.1. DNP committee approval of project
1.1.2. Establish stakeholder buy-in from guidance counselors
1.1.3. Organizational support letter from identified project site
1.1.4. Create and share project timeline with stakeholders

1.2. Project Planning

1.2.1. Perform needs assessment
    1.2.1.1. Conduct informational interviews
    1.2.1.2. Create Gap and SWOT analyses
    1.2.1.3. Formulate Aim Statement
1.2.2. Identify conceptual framework
1.2.3. Identify measurable objectives
1.2.4. Define budget items

1.3. Project Development

1.3.1. Create mental health and substance use toolkit
    1.3.1.1. Select screening tools determined by specific needs and best practice
    1.3.1.2. Gather needed parental and student informational and consent documents
    1.3.1.3. Create algorithm for responding to screening results
    1.3.1.4. Create IPC organization chart and referral flowchart
1.3.2. Create measurement tools: pre-and post-educational surveys, qualitative knowledge application survey

1.4. Project Implementation

1.4.1. Send pre-implementation survey and qualitative questionnaire to all stakeholders via email
1.4.2. Deliver pre-implementation survey during on site presentation
1.4.3. Introduce mental health screening toolkit and IPC tools to stakeholders at high school site and on-campus SBHC

1.4.4. Conduct post-implementation surveys

1.5. Data Analysis

1.5.1. Using Microsoft Excel, analyze Likert scale pre- and post-implementation surveys

1.5.2. Using manual transcription and evaluation, determine key themes in pre- and post-implementation qualitative responses

1.6. Project Close Out

1.6.1. Present findings to site-specific and district stakeholders

1.6.2. Make recommendations for future applications

1.6.3. Submit final DNP project manuscript

1.6.4. Present to DNP Chair and Committee
Appendix J

Table 5

Communication Matrix

<table>
<thead>
<tr>
<th>Contact Person</th>
<th>Frequency</th>
<th>Communication Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>DNP Chair Dr. Alexa Curtis</td>
<td>As needed</td>
<td>Phone, email, Zoom meetings</td>
</tr>
<tr>
<td>DNP Committee Members</td>
<td>As needed</td>
<td>Phone, text, email</td>
</tr>
<tr>
<td>Site Advisor Guidance Counselor Diana Medina</td>
<td>Once a week</td>
<td>Email, text, face-to-face meetings</td>
</tr>
<tr>
<td>SBHC Staff</td>
<td>Three times</td>
<td>Phone, email, face-to-face meeting</td>
</tr>
</tbody>
</table>
Appendix K

Figure 3

SWOT Analysis

**Strengths**
- Strong stakeholder support from single site staff and administration
- Frequency of existing COST coordination meetings will facilitate IPC
- Adequate SBHC and support staff in place to address screening needs
- MH student interns present from USF and CSU-EB
- Existing wrap-around services within the district into which the project can be assimilated

**Weaknesses**
- Varying levels of educational background and experience of target audience
- Lacks a permanent MH provider on staff
- Strong cultural barriers to addressing mental illness exist in the student population
- High immigrant population of non-English speaking families with historically low access rates to mental health services
- Inconsistent and fractured delivery of existing services

**Opportunities**
- Create a culture of primary prevention on a district-wide scale
- Engage district leaders in implementing additional student-focused school wide programs
- Establish institution as a leader in best practice for mental health screening and prevention
- Model for expansion of the project into additional school districts and counties

**Threats**
- Unknown source of funding for the program sustainability
- Potential lack of family support related to cultural stigma
- Lack of student engagement related to fear of stigmatization
- Community resources potentially impacted by financial instability from federal or state budget allocations or cuts
1. Calculated Funding per Student per Day

- Annual expenditure cost per ADA $12,916.00
- Divided by Number of School Days 180.00
- Cost per Student/Day $71.75

2. Calculated Daily Loss of Funding Amount Due to Chronic Absenteeism (CA)

- Project school site total enrollment 1.632 students
- 2017/18 chronic absenteeism rate (27.6%) 431 students
- Percentage reasonably attributable to mental health issues (MH) (20%) 86.2 students
- Multiplied by cost per student/day $71.75
- Daily loss of Funding r/t MH CA $6,184.85

3. Total Annual Loss of Funding from Single School Site

- Daily loss of funding r/t MH CA $6,184.85
- Multiplied by CA minimum absenteeism 18 (days)
- Total Loss of Annual Funding $111,327.30
Appendix M

Table 4

Proposed Budget

<table>
<thead>
<tr>
<th>Budget Item</th>
<th>Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager Expense</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RN Salary in project planning</td>
<td>$50.00 hour x 145 hours ($7,250 in kind)</td>
<td>$0.00</td>
</tr>
<tr>
<td>Travel time</td>
<td>Mileage at $0.30/mile x 282 miles (3 trips at 94 miles round trip)</td>
<td>$84.60</td>
</tr>
<tr>
<td>Supplies and Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost for licensed PSC-Y tool</td>
<td>Free unlimited use</td>
<td>$0.00</td>
</tr>
<tr>
<td>Cost for IPC resource inventory</td>
<td>Free unlimited use</td>
<td>$0.00</td>
</tr>
<tr>
<td>Office supplies</td>
<td>Paper, binders, sheet protectors</td>
<td>$100.00</td>
</tr>
<tr>
<td>Incidental Expenses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Use of Space for presentation</td>
<td>Provided by school site</td>
<td>$0.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>$184.00</strong></td>
</tr>
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</table>

Table 5

Return on Investment

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017/18 school site loss of funding</td>
<td>Daily amount based on estimated loss related to mental health chronic absenteeism (CA)</td>
<td>$6,184.85</td>
</tr>
<tr>
<td>10% reduction in CA from project pilot implementation</td>
<td>$5,567.80</td>
<td></td>
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<tr>
<td><strong>Daily Funding Retention</strong></td>
<td>$617.05</td>
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<tr>
<td>Annual reduction in CA</td>
<td>Multiplied by CA minimum absenteeism days</td>
<td>18</td>
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<tr>
<td><strong>Annual Funding Retention</strong></td>
<td>$11,106.90</td>
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Appendix N

Table 6

Introduction to mental health screening tool pre-/post-survey

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel confident in my ability to screen students for mental health and/or substance use disorders</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am aware of several resources for mental health and substance use services to which I can refer students and their families</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel confident in my ability to discuss a student’s potential mental health issue with the student’s family</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I am confident that I have the tools I need to appropriately identify students in need of professional mental health services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I believe that most students could “snap out” of depression or anxiety if they wanted to</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>It can be dangerous or triggering to openly discuss suicidal thoughts/ attempts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
If a student is excelling in school, it is unlikely that they have a mental health or substance use disorder.

I believe most students would ask for help if they needed it.

How would describe your readiness to address mental illness and substance abuse in your student population?

Table 7

IPC pre-/post-survey

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neutral</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am aware of all the resources for mental health services in this organization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am aware of the individuals that perform a role in the assessment and management of student mental health issues</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>I am aware of the roles and responsibilities that each of these individuals have</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I am aware of a process to make appropriate referrals when warranted</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Pre-Presentation Question: How would you describe your personal level of involvement in an interprofessional team (outside of your own department)?

Post-Presentation Question: What do you see the value being, if any, of the incorporation of an Interdisciplinary Case Review (ICR) into a team-based approach to caring for students with emotional or behavioral issues?
Appendix O
Presentation Slides

Adolescent Mental Health: A School-Based Model for Identification and Collaboration

Tiffany Gishzky MSN, RN, CNL
DNP-PMHNP(c)
February 2019

Workshop Agenda

- Introduction
- Pre-education surveys
- Mental Health Overview & Introduction of PSC-Y tool
- Interprofessional Collaboration model and flowchart
- Introduction to Interprofessional Case Review
- Questions and Discussion
- Post-education surveys

Introduction

Your Presenter
- My background
- Future plans and goals for practice

Project Objectives
- Increase knowledge in MH screening and referral
- Inform practice in effective collaboration
- Discuss unique roles in caring for adolescent emotional and behavioral needs

Adolescent Mental Health

Typical Indicators of a Potential Issue
- Poor or slipping grades
- Loss of interest in previously enjoyable activities
- Sleep changes
- Isolation
- Indications of self-harm

Atypical Indicators of a Potential Issue
- Unexplained physical pain
- Any sudden changes in behavior from baseline (anger, aggression, mood swings, appetite)

Pre-Education Survey

Please take a moment to complete the survey

Thank you!

Levels of Prevention

Primary
Secondary
Referred Students
Case management/ Treatment
Universal Screening
Tertiary
When to Screen

You don’t have to be an expert!
- The right tool
- Any encounter is an opportunity
- Appropriate for all students

The Youth Pediatric Symptom Checklist (PSC-Y)

- Assesses broad range of emotional/behavioral issues
- High Validity and Reliability
  - California Evidence Based Clearinghouse for Child Welfare gives it an “A” rating
  - Subscales for attention, internalizing, and externalizing issues
  - Embedded questions screen risk for specific issues such as ADHD, depression, anxiety, or conduct disorders

Youth Pediatric Symptom Checklist (PSC-Y)

- Student Self-Administered
- Ease of use
  - 35 questions, requiring 5-10 minutes
  - 5th grade reading level
  - Multiple languages
  - No additional software required
  - Single cutoff score to determine positive or negative results
- Free

PSC-Y Screen and Subscales

Positive Scores

- English and Spanish – positive results indicated at 30 or higher
- Attention subscale - ≥ 7
- Internalizing subscale - ≥ 5
- Externalizing subscale - ≥ 7

Response to Positive Scores

- Discuss
- Use specific responses (such as Often) to guide
- Next steps

Interprofessional Collaboration

- Streamlined Case Management
- Referral Protocol
- COST meetings every two weeks
- Interdisciplinary Case Review
Case Management

COST Director – Point of contact where emotional/behavioral and academic issues overlap

- All students positively identified from all points of entry
- SBHC
- Guidance Counselors
- Faculty and administration
- School Nurse
- Reciprocal referral system with SBHC to determine health needs

Referral Flowchart

Interprofessional Case Review (ICR)

SBHC staff, Guidance Counselors, COST Director, Interns, School Nurse

- Appropriate for:
  - Complex cases
  - Identified need for interdisciplinary input

- Important for:
  - Role delineation
  - Informed care planning

ICR Form

Questions and Discussion
Post-Education Survey

Your participation is greatly appreciated!
Appendix P

Interprofessional Collaboration Survey Raw Data and Mean Score Comparison Table

Table 8

*IPC Pre/Post Raw Data*

<table>
<thead>
<tr>
<th>ID #</th>
<th>Q1 PRE</th>
<th>Q2 PRE</th>
<th>Q3 PRE</th>
<th>Q4 PRE</th>
<th>Q1 POST</th>
<th>Q2 POST</th>
<th>Q3 POST</th>
<th>Q4 POST</th>
</tr>
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<tbody>
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Table 9

IPC Mean Score Comparison

![IPC Pre/Post Mean Score Comparison](image-url)
Appendix Q

Mental Health Literacy and Screening Readiness Survey

Raw Data and Mean Score Comparison Tables

Table 10

*MH Literacy and Screening Readiness Raw Data*

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| Mean Score | 4.08  | 4.167 | 3.83  | 4.25  | 4.33  | 3.08  | 4.08  | 4.33  |

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Table 11

MH Literacy Mean Score Comparison – Questions 1-4

![Graph of Mental Health Literacy Pre/Post Mean Score Comparison Questions 1-4](image)

Table 12

MH Literacy Mean Score Comparison – Questions 5-8

![Graph of Mental Health Literacy Pre/Post Mean Score Comparison Questions 5-8](image)
Appendix R

Qualitative Survey Thematic Results

Table 13

**Interprofessional Collaboration Survey Themes**

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<tr>
<th>Pre-Intervention Question: How would you describe your personal level of involvement in an interdisciplinary team (outside of your own department)?</th>
<th>Post-Intervention Question: What do you see the value being, if any, of the incorporation of an ICR into a team-based approach to caring for students with emotional or behavioral issues?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Heavily Engaged</strong></td>
<td><strong>Streamlining of Processes</strong></td>
</tr>
</tbody>
</table>
| • Pretty involved. I collaborate in different teams  
• I feel I am highly engaged and knowledgeable of resources outside my department  
• I would describe myself as heavily involved and collaborative | • It seems that it would make documentation and scoring more streamlined, so we would know if students need extra support based on the assessment. It would be easy to communicate with staff based on the scoring.  
• It makes sense since we do in on an informal basis at this point  
• ICR will streamline the services students are receiving, or will potentially receive. That’s a value!  
• I believe this already happens when there are cases that are much more serious. We just haven’t had a tool to document so this is helpful. Thank you! |
| **Somewhat or Marginally Engaged** | **A Whole Student Approach to Care** |
| • I think I am somewhat involved through COST on a weekly basis, and follow up with some agencies that are based on our school site  
• As an admin, I feel involved but not as deeply as I would like due to amount of commitments and time constraints  
• Marginal – I screen for depression on physical exam but not on center visits unless clinically indicated | • To provide comprehensive care  
• There is a great deal of value in this because student behavior and mental health problems could be a result of multiple factors. It’s important that all aspects of health are involved as well as other members of the student’s circle |
| **Low Level of Involvement** | **Enhanced Identification of Appropriate/Relevant Interventions** |
| • It’s very low level of interprofessional involvement usually. Once a student is referred, there is no further communication about the student | • This tool provides clearer direction, which allows for better/more relevant care and intervention. Thank you!  
• Being able to send a student to the appropriate service. I think the ICR will be really helpful and hopefully expand into HUSD  
• I feel it is very valuable because that way we can help identify real problems and get these patients the assistance that is needed |
### Mental Health Literacy and Screening Readiness Survey Themes

**Question:** How would you describe your readiness to address mental illness and substance abuse in your student population?

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<td><strong>Training and Use of Screening Tool</strong></td>
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<tr>
<td>• I feel I don’t have the time and expertise to truly address mental illness and substance abuse in my student population. I can do minimal assessment, but it can be hard for them to get connected to outside services outside of the school.</td>
<td>• Feel pretty confident in describing the screener and scoring, not too comfortable talking in depth about mental health with parents</td>
</tr>
<tr>
<td>• I am not licensed so I do feel that I wouldn’t have the ability to give any advice. But if I do feel a student needs or requires help, I would do all in my part to seek help for the student.</td>
<td>• This meeting actually gave me the tools that were needed to understand how to prepare myself for future situations. And I feel confident to use these tools</td>
</tr>
<tr>
<td>• Do not feel ready, need more information</td>
<td>• I am ready and excited about this tool</td>
</tr>
<tr>
<td>• I have mixed emotions. I do not think I am ready to discuss certain topics around mental health</td>
<td>• This tool will make me feel more prepared to address mental health/substance abuse in a consistent way</td>
</tr>
<tr>
<td>• I would say I need more training or guidance. I work at family practice and here and I fell I need to further understand the process and resources for the students</td>
<td>• I feel comfortable addressing mental health issues with my students. I think that I’ve received the training necessary to do this</td>
</tr>
<tr>
<td><strong>Somewhat Ready</strong></td>
<td><strong>Knowledge of Referral Resources</strong></td>
</tr>
<tr>
<td>• I have some knowledge of mental illness and substance abuse so somewhat ready</td>
<td>• Very ready now that I know there is someone to refer to</td>
</tr>
<tr>
<td><strong>Some Experience and Preparation/Fairly Confident</strong></td>
<td><strong>Unspecified Reason for Improved Readiness</strong></td>
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<td>• Generally speaking, I do feel comfortable addressing mental health and substance abuse with students. As part of my grad program, we discussed assessment and intervention techniques. It’s sad but true, it happens so often that it gets easier to ask the difficult questions.</td>
<td>• Good, but it takes a community/team of people: student, parent, staff</td>
</tr>
<tr>
<td>• I have experience in mentoring and youth guidance counseling. I can tell that it is a great need at X High School.</td>
<td>• I feel fairly confident in my readiness to address illness and substance abuse</td>
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