MAJOR MENTAL HEALTH REFERRAL QUALITY IMPROVEMENT PROJECT FOR CASTLE HIGH SCHOOL STAFF

UNIVERSITY OF HAWAIʻI AT MĀNOA NANCY ATMOSPERA-WALCH SCHOOL OF NURSING AND DENTAL HYGIENE

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Abstract

Background: Many high school students struggle with mental illness, especially since the isolation of the Covid-19 pandemic. Educating high school faculty/staff with basic information to recognize and refer students for mental health concerns may improve faculty/staff knowledge, confidence, and trust in the mental health referral process, which may then increase referrals and subsequent treatment of at-risk youth.

Methods: A Quality Improvement Project was conducted by a Hawaiʻi Keiki Nurse Practitioner at a Hawaiʻi public high school to determine if educating high school faculty and staff on identification and referral of high school students displaying signs of mental health distress improves staff knowledge, confidence, and trust in the overall process. The project was conducted by delivering an asynchronous webinar intervention to the faculty and staff. Data was collected via a pre-test, post-test, and a one-month follow-up test by means of a questionnaire.

Results: Of the 47 total participants, 37 completed the post-survey, and 25 completed the one-month follow-up survey. Results from the one-month follow-up indicate participant level of confidence (measured on a 5-point Likert scale) in identification of students improved from mean score m=2.96 (pre-test) to m=4.12 (1-month follow-up), level of confidence in knowledge of the process improved from m=2.65 (pre-test) to m=4.11 (1-month follow-up), and level of trust in the process improved from m=2.21 (pre-test) to m=3.20 (1-month follow-up).

Conclusion: The intervention was successful in increasing faculty/staff level of confidence in identification of students who may need mental health referrals, level of confidence in the process for referral, and level of trust in the referral process. Participants' scores between the immediate post-test and the one-month follow-up remained relatively consistent over time, indicating effective retention of the material. Recommended future research includes studying

the number of referrals made after the intervention, and studying actual outcomes of those referrals among students in order to determine if the intervention improves student mental health outcomes.

Major Mental Health Referral Quality Improvement Project for Castle High School Staff.

Introduction

The following paper outlines the problem of adolescent mental health and a proposal to improve staff knowledge, confidence, and trust in the mental health referral process for at-risk students at Castle High School.

Background & Significance

A report from the Surgeon General finds that 11% of children in the United States (US) will have a mental health problem diagnosed between the ages of 9-17 years old. Mental health problems may affect school performance or cause students' difficulties with home life or in their communities (US Department of Health and Human Services, 2000). The Centers for Disease Control (CDC) reports that 10.3% of adolescents in the US have a diagnosis of anxiety or depression (CDC, 2021). According to the Hawaiʻi Youth Risk Behavior Survey, 34.7% of Hawaiʻi high school students reported feeling sadness two or more days a week causing the inability of conducting regular daily activities. In relation, another 16.7% reported suicidal ideations, while 14.6% admitted to having a plan to commit suicide (Hawaiʻi's Indicator Based Information System, 2020).

Adolescents who have depression syndromes are more likely to have societal problems, high risk and illegal behaviors, negative life events, and teen pregnancies (Bodden, 2018). The negative effects of depression can lead to school absenteeism and even prevent teens from continuing their education in the future, thus diminishing future professional and economic opportunities. Depressed adolescents report feeling suicidal 60% of the time, and 30% of those depressed adolescents have attempted suicide (Bodden, 2018). Depressed adolescents have an increased risk of early death from not only suicide, but from unhealthy or risky behaviors. In a

Dutch study, the researchers calculated the cost of adolescent depression to society was 45 million dollars a year (Bodden, 2018). In the Annual Report on Health for Children and Youth in the United States from 2006 to 2011, mental health services for children under 18 were estimated at $11.6 billion, with inpatient visits for suicide, suicidal ideation and self-injury up 151% for ages 10 to 14 years (Torio, Encinosa, Berdahl, McCormick & Simpson, 2015).

While health care providers are able to screen patients for mental health conditions, most adolescents do not see a health care provider regularly. However, these adolescents engage in the school environment and interact with their teachers daily. Depression and anxiety among adolescents leads to difficulty concentrating and performing in class. The school staff are often able to detect subtle changes in student behavior through their everyday interaction with students (Humensky, et al., 2010).

Additionally, in research where the students were educated on identifying depression, those educated students sought out their teachers for help with their classmates. One example is the following: "The Question: 'If your friend tells you that he/ she is depressed and asks you to keep it a secret because no one else knows, what would you do?' the desired response, 'tell someone,' increased from 28% on the pretest to 40% on the posttest in the intervention group and stayed virtually the same, 26% on the pretest and 27% on the posttest, in the control group." (Ruble, Leon, Gilley-Hensley, Hess, & Swartz, 2013, p.1028). Therefore, while educating and training the students may yield improvements, training teachers in social and emotional development in order to help identify mental health issues early is imperative—the students seek them out to intervene. Through such early identification and subsequent intervention, it is possible to decrease the occurrence of major mental health disorders, logically leading to improved student mental health, and leading to a corresponding decrease in student absences (U.S. Department of Health and Human Services, 2000).

In a 2015 meta-analysis of school-based mental health intervention programs, there was a gap between the teacher mental health education and the effectiveness of the training provided to teachers. Student mental health education for teachers and staff alone, without referrals and follow-up, may not be as effective in helping students with risky mental health behaviors. (Werner-Seidler, Perry, Calear, Newby, & Christensen, 2016). To be effective, the training must result in action in the form of referrals and follow-up.

School-based nurses and nurse practitioners provide a multitude of health care services as well as health prevention services, including health screening to their school populations. School nurses are a specialized practice of nurses who promote student health within the educational environment. School nurses provide care coordination, advocate for quality student-centered care, and collaborate to design systems that allow students to develop their full potential (NASN, 2017). School nurses are key in any school-based strategy to address student depression and anxiety, and reports have noted school nurses have had success in implementing effective mental health screening strategies in school-bases settings (Allison, Nativio, Mitchell, Ren, & Yuhasz, 2014). School nurses are and should continue to be a first line mental health resource for students, teachers, and administration.

Hawaiʻi Keiki Program

The Hawaiʻi Keiki: Healthy and Ready to Learn program provides school-based health services to support the Hawaiʻi State Department of Education (DOE) in promoting student health, and thereby academic success. The program's objectives are to support students' physical and mental health needs with the goal of improved attendance, grades, and graduation rates. The

Hawaiʻi Keiki clinics are located in each of the fifteen complex areas, providing medical services from an advanced practice nurse (APRN) or registered nurse (RN). The complex areas are geographically divided sections on each of the five main islands (Lanai is associated with Maui). The schools within that complex area are led by a complex area supervisor under one superintendent for all of the islands in the state. In the Castle-Kahuku Complex, there are sixteen schools which include two high schools, two middle and intermediate schools, and twelve elementary schools. A Hawaiʻi Keiki nurse is based at one school in the complex area. The nurse provides services for that base school, and provides medical support for the rest of the schools in the complex.

Needs Assessment

The identification of student mental health concerns, subsequent referrals to providers, and follow-up by school-based staff is an ongoing and important issue in the high school population. High school staff (teachers, administrators, athletic staff, and support services) should be able to 1) identify markers for student mental health risks, 2) be able to properly refer the student, and 3) have confidence that follow-up occurs. Therefore, a needs assessment was conducted at Castle High School with a goal to understand the current process and structure as well as gaps in knowledge, confidence, and trust.

Qualitative interviews with key stakeholders including the athletic trainers, a teacher, an administrator, and the student services coordinator were conducted for a total of five in-depth, informal interviews. The needs assessment questions for the staff were the following: What is the current student mental health referral process? What are the problems with the current process? Do you have any concerns or possible improvements about the current process? After data was collected, field notes were reviewed, and findings fell into the following categories:

lack of knowledge associated with the referral process/system, lack of trust in the referral process/system, and lack of confidence in the current process/system.

All except two of the high school staff participants knew to initially refer to the academy counselor. The athletic trainers said that the problem with the current mental health referral process was that it was "not standardized, and no one really knows what it is." Their concern nested in a lack of knowledge on the process after the referral was made. Only two of the five of those interviewed knew about the mental health referral process from beginning to end, because they were part of the CSSS (Comprehensive Student Support System) team. Many staff also voiced a lack of trust in the process. Three of the five interviewed expressed distrust in the process as a whole. Distrust was expressed as not understanding if the proper follow-through was made and if the student would "fall through the cracks," depending on who received the referral. Lastly, the CSSS team who receives the referral was unhappy with the current protocol pathway, because it was "unfinished," and not officially approved by the administration.

The summary of findings from the interviews revealed that knowledge, confidence, and trust with the current process among the surveyed high school staff was widely distributed in relation to the respondents' position in the school setting. The athletic trainers reported no knowledge of the referral process and therefore no confidence or trust, the teachers only expressed knowledge of the first step of the process while having no confidence or trust, and the administrators admit knowledge of the process, but also report that the process needs an update to enable better clarity and flow. Clearly, there is room for improvement in both knowledge and trust of the process within the faculty and staff.

Problem Statement

Adolescent mental health problems may lead to student absenteeism, diminished academic success, and may impact long term health and socioeconomic status. Educators, staff, and school nurses in the high school setting are taught how to identify students showing signs of mental health distress, but do not have a consistent process for referral and follow-up. Teachers do not have the time or often the confidence to follow-up or pursue concerns about individual students. The staff would benefit from an easier, standardized, referral process, which would benefit the students.

PICOT (Population, Intervention, Comparison, Outcome, Time)

At Castle High School, will school educators and staff (P) benefit from increased knowledge, confidence, and trust (I) from the development of a pilot educational intervention (C) as compared to past practice (O) to improve/increase staff knowledge, confidence, and trust for student mental health concerns, current referral protocol, and follow-up (T) one month after the intervention during the 2021-2022 academic year?

Purpose and Objectives

The purpose of this quality improvement project is to improve teachers and staff's knowledge, confidence, and trust of the mental health referral process for students through a pilot educational intervention. Educators and staff at Castle High School will view an informational webinar on signs and symptoms of major mental health problems, and on how to refer those students they identify for help. The objectives are to: 1) increase measured scores (per pre-test and posttest) of teachers and staff knowledge, trust, and confidence in the mental health referral process after participating in the pilot intervention, and 2) assess faculty and staff retention of knowledge of the materials presented in the webinar, the referral process at one month after the pilot intervention.

Conceptual Framework: The Iowa Model-Revised

The Iowa Model-Revised is a widely used evidence-based structure using best evidence to guide clinical practice. The steps of the Iowa Model include identifying a problem, stating the question or purpose, identifying if the problem is a priority, synthesizing a body of evidence, if there is sufficient evidence, design a pilot, evaluate the change for adoption in practice, integrate and sustain the change, and disseminate the results. This model will be utilized to guide the project as it directs the literature synthesis, design of the project's pilot educational intervention, and methods for evaluation. For a more detailed outline of the model—see Appendix A (Iowa Model Collaborative, 2017).

Using the Iowa Model, the problem of mental health recognition and referral was identified. Through the help of the mental health team from Castle High School and a needs assessment—the need was verified, and a pilot educational intervention was developed. Using the data from the pilot educational intervention, the author will discover if the intervention was successful, and be able to make a recommendation on whether the evidence should be used to create other similar programs.

Synthesis of the Evidence: Review of the Literature

This review of literature seeks to inform understanding of the school-based personnel on their abilities to identify and refer students for mental health concerns. The goal of this synthesis was to gain a greater depth and breadth of understanding of the state of science in the field, and identify a gap or gaps for further research.

Pubmed, CINAHL, and Google Scholar databases were used to search scholarly articles regarding adolescent mental health in schools. Search terms include: “mental health training,” “school,” “adolescents,” “high school,” “teacher,” “high school mental health,” and “school psychiatry referral”. These terms were combined through Boolean operators (AND, OR) and truncations to filter the searches. Articles were included if they were published in English, had full text, and were from peer reviewed journals. Articles were excluded if they did not include the adolescent age group and were not in a school setting. Approximately 271 articles were identified that met inclusion and exclusion criteria and these were reviewed for relevance and critiqued using Mosby’s Quality of Evidence Rating System (see Table 1). A total of 20 articles were included in the final sample and synthesized in this review.

Table 1

Mosby’s Level of Evidence

Level I	Meta-analysis	1
Level II	Experimental design (RCT)	6
Level III	Quasi-experimental design	4
Level IV	Case-controlled, cohort, longitudinal studies	6
Level V	Correlation studies	3
Level VI	Descriptive studies	0
Level VII	Authority opinion or expert committee reports	0
Other	Performance improvement, case reports, literature review, etc.	0

Synthesis of Evidence

A total of 20 articles regarding mental health education, screening, and referral for teachers and students were identified and common themes across articles are presented below

Additionally see Appendix E for literature review table explicating author, purpose, sample, method, and findings for each article included in the review.

Teacher Training

One of the most prevalent themes emerging from the synthesis was that mental health training for teachers improved their knowledge of the mental health concerns for adolescents, improved their attitudes about mental health problems, and gave them confidence in the identification and referral regarding mental health problems for their student populations (Fisher et al., 2020, Kidger et al., 2016; Jorm, Scales, Sawyer, Scales, & Cvetkovski, 2010; Vieira, Gadelha, Moriyama, Bressan, & Bordin, 2014; Wei & Kutcher, 2014).

In Kidger et al, the researchers actually started with working to improve the knowledge of mental health of the school teachers, first, and then focus on the knowledge level of the students in their one-year trial. The 1,862 student and 438 faculty survey respondents noted in their post-surveys that mental health interventions may be useful, and so the authors recommended a follow-on effort to measure actual impacts (Kidger et al., 2016). In Jorm, et al., the researchers used 7 experimental and 7 control schools in South Australia. While staff availability and scheduling hamstrung the instruction, the intervention found a statistically significant improvement in mental health information, attitudes, and confidence in providing help to students. Also, the Jorm et al. trail noted that the students had reported receiving increased mental health information from the faculty. Like Kidger et al., however, the researchers never observed a change in actual action towards students with mental health issues (Jorm, Scales, Sawyer, Scales, & Cvetkovski, 2010).

While the Kidger and Jorm studies did not address actual referral and intervention, the Viera et al. study from Brazil exposed a different regional issue: a propensity in Brazil to refer students to mental health who exhibit normal adolescent behaviors, overloading the limited mental health resources. The Viera study not only sought to educate the teachers on identifying and referring abnormal behavior, but also sought to educate them on not reporting normal behavior. The 32 educators who received training during the study showed an increase in their ability to identify symptomatic students by 50%. They increased their ability to identify normal behavior by 60%. However, the teachers had no improvement in identifying students who showed no external symptoms (Vieira, Gadelha, Moriyama, Bressan, & Bordin, 2014).

In the Wei and Kutcher evaluation, the educators showed significant improvements in mental health competencies as well as an improvement in participant (teacher) attitude. However, the teachers participating in the intervention were selected by the administrators, biasing the results. Overall, though the Wei and Kutcher study introduced a new approach: Increasing mental health competencies of the educators and training them to link the students with appropriate services (Wei & Kutcher, 2014, p. 222).

In summary, the take-away from these above teacher training studies or interventions is that properly focused and administered training of educators can aid them to better identify and link students who have mental health problems with needed services. What remains is the question of actual impact of these interventions to mental health outcomes.

Student Help-Seeking Behaviors

In regard to students, the multiple reports found that mental health training for students did improve student knowledge of mental health problems, increased student help-seeking behaviors, and therefore, was an effective program (Ruble, Leon, Gilley-Hensley, Hess, & Swartz, 2013; Strunk, Sorter, Ossege, & King, 2014; Werner-Seidler, Perry, Calear, Newby, & Christensen, 2016). In Ruble et al., like many studies above in teacher training, the study found that there was a statistically significant improvement in student knowledge about mental health on an ADAP Depression Knowledge Questionnaire, but the study did not measure actual student behavior. Strunk et al. measured behavioral intent, which measured intent to tell an adult, but did not actually measure any actual record of interventions (Ruble, Leon, Gilley-Hensley, Hess, & Swartz, 2013). Werner et al. performed a meta-analysis of 81 studies of psychological studies preventing anxiety and depression in teens, finding that targeted interventions and use of external sources from outside the school staff have the potential to produce larger effects (Werner-Seidler, Perry, Calear, Newby, & Christensen, 2016).

According to Brooks et al., female teens were more likely to report mental health problems than males, while other associations with higher reporting of depression and stress include older age, physical violence (fights), non-use of birth control, unhealthy diet, and tobacco use (Brooks, Harris, Thrall, & Woods, 2002). However, another analysis from Samargia et al., found that adolescent girls and teens with both parents at home were less likely to seek mental health help, 36% cited because they “Didn’t want parents to know” (Samargia, Saewyc, & Elliott, 2006, p. 20). Adolescents who screen positive for mental health problems perceived that their symptoms were negatively affecting their grades, their relationship with their teachers, and their likeliness to come to or concentrate in class (Humensky et al., 2010). Lastly, asking students about suicide did not, in itself, make them suicidal (Gould et al., 2005).

In summary of student studies and analysis, targeting at-risk populations, using external trainers, using a follow-up of several months, and attempting to measure actual behaviors may aid in focusing a program that generates positive outcomes in student mental health.

Early Identification and Referral/School Climate

In a large retrospective study conducted in Wisconsin, the researchers found that school-based mental health screening and referral helped to identify at-risk adolescents and provide them the help they need (Husky, Sheridan, McGuire, & Olfson, 2011). Other studies found that screening for depression and anxiety did improve early identification, and expedited referrals for treatment (Allison, Nativio, Mitchell, Ren, & Yuhasz, 2014). In addition, a positive school climate was associated with increased mental health literacy and decreased stigmatization about mental health problems (Townsend et al., 2018).

Summary of Review

While the above studies, interventions, and analyses led to positive results, one study, from Lillevolli et al., found that student self-led therapy was not successful, largely due to non-participation in the optional questionnaires (Lillevolli, Vanberg, Griffiths, Waterloo, & Eisemann, 2014). Another study looked at the feasibility of implementing the teaching training programs. The outcomes showed that the conducting and evaluating programs were feasible (Stallard & Buck, 2013). However, in another study led by Stallard, the researchers found that interventional training in schools, although helpful, was not cost effective due to the use of external psychology staff, many of them doctors or college professors, to deliver the interventions (Stallard et al., 2013).

Findings of this review imply that mental health screening and training for both teachers and students alike is helpful for improving identification of mental health problems. The purpose of most of the mental health programs was to improve overall student knowledge regarding mental health, however, there was an apparent lack of research examining teachers' abilities/ skills/ confidence associated with referral and follow up for students. Another important finding throughout the studies was that poor mental health equated to poor educational outcomes and educational attainment (Brannlund, Strandh, & Nilsson, 2017).

Strengths and Limitations of the Review

The overall quality of the research was adequate, in that more than half of the articles were levels I, II, or III. The articles had suitable designs or framework, population sizes, randomization, and controls. However, there were several limitations to the review. Most articles did not specifically examine the referral protocols or rates of referral. Many article described only mental health programs that involved teacher or student education regarding mental health recognition, however they did not discuss the connection to mental health referrals and services. In general, articles focused on recognition of mental health problems, improving attitudes, and improved student depression and anxiety. A few reports discuss referrals by school-based health clinics, but does not directly involve the school staff and faculty as applying the protocol.

One gap noted was a lack of reports highlighting education on the standing protocols for teachers and staff to refer students with possible major mental health problems. In this author's proposed quality improvement project, the pilot educational intervention will include the referral process as well as assess teacher knowledge, confidence, and trust regarding recognition and referral for mental health concerns.

Methods

Project Design

The proposed quality improvement project is a pilot of a mental health referral process educational webinar for teachers and staff at Castle High School in Kaneohe, Hawaiʻi on the island of Oahu. A pre-post educational intervention quantitative survey with limited open ended response questions design will be utilized. Additional, participants will be asked to re-engage in a 1 month follow-up survey to assess knowledge retention over time.

Setting

The setting is at Castle High School in Kaneohe, Hawaiʻi in the Castle-Kahuku Complex Area. There are approximately 1,105 students enrolled in either online or hybrid classes for school year 2020-21. In addition to the students, there are 90 teachers, five school-based behavioral health counselors, six administrators, and one social worker.

Participants

Participants are the teachers, staff, and school based behavioral health professionals at Castle High School with an approximate potential sample size of 50. This intervention is directed only at the Castle High School educators and staff. There are 90 teachers, 5 school-based behavioral health counselors, 6 Administrators, 2 athletic trainers, and 120 coaches. The education intervention's goal is to increase educators and staff knowledge, trust, and confidence in the mental health referral and follow-up process for students at Castle High School. All of the staff and administrators are invited to participate in the webinar with pre and post surveys. The primary option for recruitment is to present the webinar for viewing during a staff professional development day. The secondary option is by direct email and a link to participate in the webinar.

Intervention Description

The webinar will be approximately 10 minutes long, containing information on major mental health warning signs and symptoms in students, and detailed information on the current school mental health referral process. The webinar will be developed using educational materials obtained from the Mental Health First Aid USA training provided by the Hawaiʻi DOE, attended

May 2020 (Kelly, Kitchener, Jorm, &, 2016). It will include training regarding students who exhibit major mental health problems such as signs of depression, anxiety, or suicidal ideation and what to do once they are identified according to school policy. The final product will be approved by Principal Tyrell, by Doug Halili, the content area expert, and Ayada Bonilla, the School-Based Behavioral Health Educational Specialist, before finalizing it for staff participation.

Data Collection and Measures

Phase 1 will take place in the fall of school year 2021-22. The proposed intervention includes a pretest on knowledge, confidence, and trust followed up by viewing of the webinar, and a similar posttest after viewing the webinar. Participants gathered from either of the two proposed recruitment methods will be given the pre and post surveys which include questions in Likert 5-point scale format via an internet link on their emails, or ideally in the chat during a Zoom teacher meeting. Teachers will click directly on the link that takes them to a Google survey before the educational intervention, then again after watching the webinar. The one-month follow-up survey will be a scaled down version of the post survey and sent directly to the participants via their school email.

The pre survey contains approximately 12 items, and will include questions to elicit the participant's knowledge, confidence, and trust of the current student mental health referral process. For example, the question to assess confidence is: How confident are you in your knowledge and understanding of the current process for mental health referral at Castle HS? (5-point Likert scale from very confident to not confident at all). The survey will also include questions to assess participant's basic knowledge of major mental health recognition in students. In addition, there is an area for optional free-text (qualitative question) at the end. The post survey includes slightly modified items as the pre survey. The surveys are expected to take no more than five minutes to complete. An example of one of the survey questions is: The draft of the pre-survey is in Appendix C. See Appendix D for the post survey.

Phase 2 is a one-month follow-up survey to assess knowledge retention, assess for any change in attitudes, and see if participants report referring more students. Remuneration for the one month follow-up is proposed to be a small goodie bag, after receiving administrator approval.

Data Management and Analysis

All data collected will be without any personally identifiable information. All data is non-identifiable using Google forms, and held securely on a computer with a password. Data will be downloaded from Google forms into a Microsoft Excel spreadsheet for management, cleaning, and analysis. Quantitative data from pre and post surveys will be analyzed using descriptive statistics, including mean and standard deviations for continuous variables and percentages for nominal data. Data collected from the surveys will be analyzed and managed using a Microsoft Excel spreadsheet and aggregate data tables.

Open ended questions/qualitative data from pre, post, and one-month follow-up surveys will be analyzed descriptively and in summation. If enough data exists to perform analysis by conventional content analysis, then this methodology will be utilized. Data will be read for overall orientation, and combined into categories for summary, as appropriate.

Ethical Aspects

This quality improvement DNP project does not qualify as human subject research, as it involves training for the adult staff and faculty members of the school. No students will participate. There will be no identifiers, and the information collected via pre- and post-training surveys is anonymously received, using Google Forms. This project has received approval from the DOE data governance and analysis branch.

Results

The Major Mental Health Referral QI Project was successfully implemented in the fall of 2021 at CHS. Due to unforeseen circumstances, the QI project webinar was disseminated to faculty and staff via email rather than at the CHS faculty and staff meeting as was planned. The email announcing the webinar was sent out to all the faculty and staff with all the required deliverables--the pre-survey, webinar attachment, and post-survey--in order to make it simple for participants to access the material. A second email was sent after 1 month, encouraging participants to complete the one-month follow-up survey. Overall, Forty-seven CHS employees participated in the pre-survey and webinar. Of those 47 total participants, 37 completed the post-survey, and 25 completed the one-month follow-up survey. While no personally identifying information was collected in the survey, the sample population includes representation from CHS's faculty, staff, athletic trainers, and athletic coaches.

Pre-Intervention Results

The primary purpose of the pre-intervention survey was to assess the participant knowledge, confidence, and trust in the current CHS referral systems. The secondary purpose of the pre-intervention survey was to assess participants' previous education related to mental health services, and baseline patterns of referral of students for school-based services. Prior to viewing the webinar, only 25.5% of participants had attended any formal educational training in mental health provided by the DOE, as depicted in Figure 1. Only 8.5% received the training within the last year, as depicted in Figure 2.

Figure 1. CHS Staff that Ever Attended a Formal Mental Health Training

Figure 2. CHS Staff that Attended a Formal Mental Health Training in the Past 12 Months

Additionally, rates of referrals for students for mental health related problems are as follows: 1) During the 2019-2020 school year, 0% of participants reported referred zero ("none") students, 48.9% referred 1 or 2 students, 34% referred 2 or 3 students, 4.3% referred 3 or 4 students, and 8.5% referred 4 or 5 students. 2) During the 2020-2021 school year, reported rates of referral were 57.4% of the participants reported referring zero ("none") students, 31.9%

referred 1 or 2 students, 2.1% referred 2 or 3 students, 2.1% referred 3 or 4 students, and 6.4% of the participants reported 4 or 5.

Prior to the intervention, the participants rated their confidence in knowledge and understanding of the current referral process, their confidence in identifying possible signs of mental illness in students, and their trust in the current mental health referral process on a 5-point Likert scale enumerated per the following quantification where (0) represents none at all and (5) represents the most knowledge, confidence or trust. The participants mean confidence in identification of students was 2.96, the mean confidence in knowledge of the process was 2.65, and the mean score for trust in the process was 2.21. A comparison of the results pre, post, and one month are in Table 2.

Of the five items that elicited knowledge, the participants tended to have a high level of knowledge on the pre-intervention questionnaire choosing the correct answers for the suicidality question more than 85% of the time, on the depression question more than 95% of the time, and anxiety question at greater than 49% of the time as shown in Table 3.

Post-Intervention Results

Post viewing the webinar, participants again rated their confidence in knowledge and understanding of the current referral process, their confidence in identifying possible signs of mental illness in students, and their trust in the current mental health referral process again using the 5-point Likert scale. Their confidence in identification of students increased (mean=4.03), their confidence in knowledge of the process increased (mean=4.32), and their trust in the process also increased (mean=3.16). A comparison of the results pre, post, and one month appear in Table 2, below.

Regarding the knowledge questions as displayed in Table 3, significant improvement was observed in one question. That question asked, “If you identify a student you would like to refer for mental health concerns, the first person to contact at Castle High School is:” Participants chose the correct answer (“Grade level counselor or school nurse is appropriate.”) 31.2% more on the post-test and 32.7% more on the one month follow-up. These increases in correct responses signal potentially significant improvement in that area of their knowledge. This finding may indicate that the knowledge section of the educational material could be improved for better understanding.

1-Month Follow-up Results

One month after the participants viewed the QI project webinar, participants again rated their confidence in knowledge and understanding of the current referral process, their confidence in identifying possible signs of mental illness in students, and their trust in the current mental health referral process. The questionnaire used the same the 5-point Likert scale as before. Participant confidence in identification of students (mean=4.12), their confidence in knowledge of the process (mean=4.11), and their trust in the process (mean=3.20) all generally remained at the same level as the post-test. A comparison of the results pre, post, and one month are in Table 2, below.

Overall, when the staff chose the correct answers on the knowledge questions, they did tend to appear to retain the knowledge on the one month follow-up. As seen in Table 3, there was only about 1-3% difference in their answers from the post-test to the one month follow-up. The staff tended to retain the information relevant to make their referral, and seemed confident in their recognition of mental health problems, despite not gaining much new information regarding signs and symptoms of depression, anxiety, and suicidality.

Table 2: Confidence, Knowledge, & Trust [pre (n=47), post (n=37), 1 month (n=25)]

	Pre Mean Score	Post Mean Score	1-month Mean Score
Confidence Question			
How confident are you in identifying signs of possible mental health problems in your students?	2.96	4.03	4.12
Knowledge Question			
How confident are you in your knowledge and understanding of the current process for mental health referral at CHS?	2.65	4.32	4.11
Trust Question			
How would you rate your trust in the current mental health referral process? (posttests "after watching the webinar")	2.21	3.16	3.20

Table 3: Knowledge Individual Scores: [pre (n=47), post (n=37), 1 month (n=25)]			
Question and Answers	Pre N(%) correct	Post N(%) correct	1-month N(%) correct
What are some things to look for in a student who is potentially suicidal?			
Threatening to kill themselves	**46(97.9)**	**37(100)**	**25(100)**
Talking about death, dying, and suicide	**44(93.6)**	**37(100)**	**25(100)**
Carefully assess situations before deciding to act	12(25.5)	10(29.7)	5(20)
Giving away prize possessions	**40(85.1)**	**37(100)**	**25(100)**
Expressing hope for the future	12(25.5)	10(29.7)	8(32)
What are risk factors of depression?			
Family poverty or social disadvantage	**46(97.9)**	**36(97.3)**	**24(96)**
Parental separation	**46(97.9)**	**36(97.3)**	**25(100)**
Student always asks to use the bathroom when it's their turn to present	17(36.2)	17(45.9)	10(40)
Lack of close, confiding relationship with someone	**45(95.7)**	**37(100)**	**25(100)**
Student is active in sports/clubs/maintains good grades	5(10.6)	5(13.5)	2(8)
What are physical signs and symptoms of an anxiety disorder?			
Pounding heart, chest pain, rapid heartbeat, and blushing	**24(51.1)**	**36(97.3)**	**25(100)**
Dizziness, headache, sweating, tingling, and numbness	**47(100)**	**37(100)**	**24(96)**
Stomach pains, nausea, vomiting, and diarrhea	**43(91.5)**	**36(97.3)**	**25(100)**
Seeing or hearing things that are not there			
Trouble sleeping	**23(48.9)**	**36(97.3)**	**25(100)**
What does the action plan ALGEE stand for?			
Assess/Listen/Give/Encourage (prof)/Encourage (self)	**42(89.4)**	**34(91.9)**	**24(96)**
Act/Learn/Go/Examine/Experiment	0	0	0
Assess/Learn/Go/Encourage/Encounter	4(8.5)	2(5.4)	1(4)
Assess/Listen/Give/Excite/Encourage	1(2.1)	1(2.7)	0
If you identify a student to refer for mental health concerns, the first person to contact at CHS is?			
Student	0	0	0
Student's grade level counselor	21(44.7)	5(13.5)	3(12)
Parent	0	0	0
School nurse	0	0	0
Counselor & school nurse are both appropriate	**26(55.3)**	**32(86.5)**	**22(88)**
Note: **Bold** = correct item			

Qualitative Results

A comments section for free text inputs appeared on the bottom of each test provided to the participants. A review of the comments yielded a common theme that the presentation and materials were of value, and that they should be made mandatory for all staff, instead of voluntary. One person thought the presentation or one like it, should be shown to students as well. Another common theme was that the staff felt like the issue of mental health was a very serious concern, and they were glad it was being addressed. Some participants mentioned how many more mental health issues seemed to come up since the pandemic. Another common sentiment was a "thank you" for the presentation, because it helped them feel more "confident" in referring a student who may exhibit mental health concerns. All participant comments are listed in Appendix F.

Discussion

The purpose of the pilot intervention was to increase the CHS staff and faculty's perceived knowledge, confidence, and trust in the mental health recognition and referral process. Based on the needs assessment and literature review, a pilot educational webinar was developed to help staff recognize students at risk for mental health problems and to properly refer them within CHS. The staff watched the 10-minute educational intervention asynchronously that included signs and symptoms of depression, anxiety, suicidal thoughts, and where to refer students who exhibit those characteristics within the school. The participants completed a pre, post, and 1-month follow up survey to capture confidence, knowledge, and trust associated with mental health and the mental health referral process for students.

The participants' mean scores improved in all three areas after the intervention, and remained high after the 1-month follow up. On the knowledge questions, the participants tended to pick the correct answers, and continued to identify the correct answers post intervention and on the 1-month follow up—in all areas except "where to refer a student," which improved significantly reflecting the findings of the needs assessment. Finally, in the qualitative findings, there was an overall expression of appreciation for the relevant training with a frequent recommendation to make the training an annual mandatory requirement for CHS staff and faculty. The overall intervention was effective and accepted (received excellent reception) by the administration, faculty, and staff.

The results reflect some of the strongest insights gathered from the literature review, in that staff training does improve the teachers' awareness of mental health concerns for adolescents, their attitudes and stigma about mental health problems, and the confidence and knowledge to identify and refer students at risk. Kidger, et al. (2016) similarly offered the educational training to staff and faculty, and found that their staff training offered knowledge, skills, reassurance, and support regarding student mental health concerns. Fisher et al. (2020), Kidger et al. (2016), and Jorm et al. (2010), all utilized the same Mental Health First Aid Training (MHFA) used as a reference to build this project's interventional webinar, and each reported similar success with increasing staff awareness, knowledge, and confidence regarding student mental health concerns. Similar to Vieira et al. (2014), the faculty/staff in this project had some prior knowledge in identifying students exhibiting mental health concerns, but lacked some of the subtleties in deeper mental health problem recognition. This pilot project most closely reflects the findings of the Jorm, et al. (2010), documenting that the MHFA training increases teachers' mental health knowledge, attitudes, and confidence.

In contrast to previous reports, this project's intervention was accomplished online and asynchronously. Previous reports noted results from interventions that were offered to faculty/staff in-person with questionnaires completed pre and post intervention which may offer a more controlled learning environment. Another contrast was that two of the articles [Fisher et al. (2020) and Kidger et al. (2016)] offered post intervention staff peer support to help reiterate program materials and offer staff follow up. Fisher et al. (2020), however, mentioned that it often went unutilized, and may not have been a helpful addition (Fisher et al., 2020, Kidger et al., 2016; Jorm, Scales, Sawyer, Scales, & Cvetkovski, 2010; Vieira, Gadelha, Moriyama, Bressan, & Bordin, 2014; Wei & Kutcher, 2014).

Previous literature review reports discuss the positives of educating the faculty/staff on recognition of mental health problems within the schools. In this project, the faculty/staff knowledge did not increase significantly due to the high starting point; however, the faculty/staff did show improvement in the comfort levels and willingness to refer students identified as at-risk. The faculty/staff expressed gratitude for the education that will facilitate their ability to discuss mental health and know where to go and how to seek help. This project was novel as many previous studies explored mental health education for faculty/staff and students, but lacked education for faculty/staff on how to refer at risk students once recognized.

Strengths and Limitations of the Project

Strengths of the project include accessibility, ease of use, and only a small amount of time needed for participation. The project educational intervention was disseminated over email, enabling asynchronous and remote delivery, rather than being presented at a synchronous staff meeting. Participants were also provided with a copy of the PowerPoint presentation materials for later reference. Teachers could potentially keep the reference materials to refer to at a later date if they needed refreshers or hotline phone numbers. Participants only needed about 10 minutes to view the webinar and under 5 minutes to complete the questionnaire—potentially leading to greater compliance.

Asynchronous remote delivery also presents a limitation, though. Since the project was sent out over email, participants had to find the email, open and proactively participate in the project. The participants were more eager to complete the first survey, but participation fell off after the post survey, and even more after the one month follow up. The teachers are busy and this project was done on their own time rather than in an allotted time for their continued learning. Therefore, voluntary participation was not as likely.

Implications for Future Work/Projects

The findings of this project indicate that CHS staff and faculty are eager to learn more about student mental health and how to help students in need, especially since the Covid-19 pandemic. The teachers mentioned in their comments that the pandemic lockdowns correlated with an uptick in student mental health problems as well as a lack of support while students were away from the school environment. The intervention increased staff and faculty's knowledge, confidence, or trust in the mental health referral process in order to make the first step to identify and refer a student.

While the project was limited to voluntary participants at CHS and results cannot be generalized beyond this population, it can be easily adapted to other middle and high school in the State of Hawaiʻi. Adapting the project materials for training staff in making referrals at other schools would require minor changes to the webinar to suit each school's needs. Another possible way to expand the project to other schools would be to have the state determine a consistent referral model. The intervention could then be consistent state-wide, and the knowledge would then easily be transferable from school to school if staff and faculty move to a different school within the state public school system.

Future expansion of this work should include adding this 10-minute educational webinar to mandatory staff/faculty trainings at the beginning of each school year, so that every staff/faculty member has at least some familiarization with the process. The school may even provide a prominent link to the information on their school website so teachers who have further questions or need an easily accessible reminder of the information may quickly find it. These steps may increase student early referrals to available resources to prevent more severe mental health complications.

Another suggestion for a follow-up project is to collect data and examine the actual number of student referrals made after the intervention. In addition to evaluating possible increase in referrals, it would be imperative to eventually evaluate direct outcomes for students who were referred. Possible metrics might include: number of students who obtained counseling, number of students who completed their education, number of students admitted for in-patient mental health services and recovery rate for those admitted.

Conclusion

Structures to support the mental health of students has been identified as a national priority and a state-based priority here in Hawaiʻi, especially since the isolation of the Covid-19 pandemic. This project's educational intervention which included ways to recognize and refer students for help had a direct positive impact on faculty/staff's knowledge, confidence, and trust in the mental health referral process. Recommendations for future practice are to routinely provide information on recognition and referral of student mental health concerns annually to build and reinforce a foundation of mental health knowledge in the school staff and faculty. The expectation is that staff/faculty will be more likely to refer if they not only know about the referral process, but also trust that their referrals will make a difference. Early identification and referral to treatment of student mental health concerns is another way to improve support for students in order to enable them to successfully learn, graduate, and become productive members of society. Improving student health has far reaching benefits both now and in the future.

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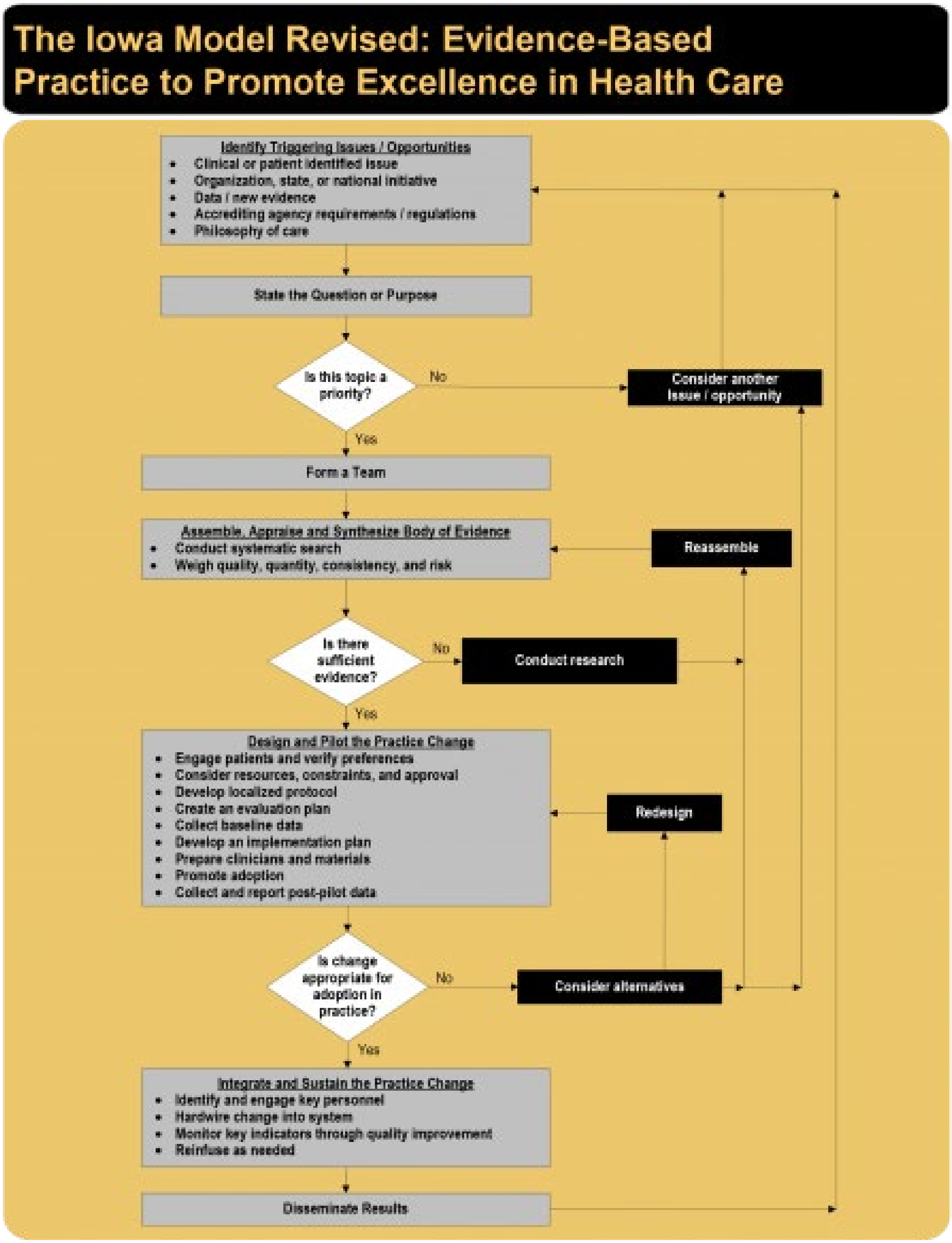
Appendix A


The Iowa Model Revised: Evidence-Based Practice to Promote Excellence in Health Care
Identify Triggering Issues / Opportunities
Clinical or patient identified issue
Organization, state, or national initiative
Data / new evidence
Accrediting agency requirements / regulations
Philosophy of care
State the Question or Purpose
Is this topic a priority?
No
Consider another issue / opportunity
Yes
Form a Team
Assemble, Appraise and Synthesize Body of Evidence
Conduct systematic search
Weigh quality, quantity, consistency, and risk
Reassemble
Is there sufficient evidence?
No
Conduct research
Yes
Design and Pilot the Practice Change
Engage patients and verify preferences
Consider resources, constraints, and approval
Develop localized protocol
Create an evaluation plan
Collect baseline data
Develop an implementation plan
Prepare clinicians and materials
Promote adoption
Collect and report post-pilot data
Redesign
Is change appropriate for adoption in practice?
No
Consider alternatives
Yes
Integrate and Sustain the Practice Change
Identify and engage key personnel
Hardwire change into system
Monitor key indicators through quality improvement
Reinfuse as needed
Disseminate Results

Appendix B

James B. Castle High School Response to Intervention (RTI) Process

Data Collection on ALL Students

(E.g. STAR universal screener, attendance records, office referrals, Teacher Concern, Other)

James B Castle High School RTI

Teacher or staff referral,

Reviews above student data weekly during admin prep periods (common prep) and alerts CHS RTI Grade Level Team of any potential students

Comprehensive Student Support System Meeting (CSSS)

(School Administrators, Counselor(s), SBBH, School Social Worker, SSC)

Reviews students that the CHS RTI Team identified as having possible needs and determines if primary concern is ***Attendance****,* ***Academic****, or* ***Behavioral****.*

ATTENDANCE

Consult with Counselor

Meeting with counselor and school social worker regarding attendance policy and procedures. ILI/BSP

ACADEMIC

Academic Interventions

Evidence-based interventions (tutoring, math/ELA labs) ILI/BSP

BEHAVIORAL

Behavioral Support Plan

Consult with counselor and/or BHS, Autism Consulting Teacher, Student Services Coordinator

Develop and implement goal directed behavior plan

CHS RTI GRADE LEVEL Team

Progress Monitoring

(School Administrators, Teachers, Counselor(s), SBBH, School Social Worker, SSC)

- *Reviews data from interventions and determines if goals are achieved*
- *Assesses if there are any additional* ***Academic****,* ***Attendance****, or* ***Behavioral*** *concerns that need to be addressed. If needs are identified, repeat RTI process in respective area of concern*
- *Consult with SSC and/or school administration as needed*

Student Support Meeting

(Any relevant student team members)

- *Reviews previously collected data from interventions and student records*
- *Problem solving meeting*
- *Develop/implement goal-directed student plan with accommodations and/or evidence based interventions and instructional strategies*
- *Plan created for next steps*

Intensive Supports

Based upon all previously collected data from above interventions, assessments conducted, etc., team determines specific needs of student and eligibility. Subsequent plan/program developed by team for student. (e.g. Individualized Education Plan (IEP), Section 504 Plan, etc.)

Appendix C: Pre/Post Survey Questions

1. Prior to this webinar, have you ever attended any formal educational training in student mental health provided by the School or the Department of Education (e.g. Mental Health First Aid Training)? ***Not on the post survey**

2. In 2021, did you receive any formal educational training in student mental health provided by the School or the Department of Education (e.g. Mental Health First Aid Training)? ***Not on the post-survey**

3. How confident are you identifying signs of possible mental health problems in your students (0 being no confidence and 5 being the most confidence)?

4. How confident are you in your knowledge and understanding of the current process for mental health referral at Castle HS (0 being no confidence and 5 being the most confidence)?

5. How would you rate your trust in the current mental health referral process (0 being no trust and 4 being the most trust)?

6. What are some things to look for in a student who is potentially suicidal (select all that apply)?

7. What are risk factors for depression (select all that apply)?

8. What are physical signs and symptoms of an anxiety disorder (select all that apply)?

9. What does the action plan acronym ALGEE stand for?

10. If you identify a student you would like to refer for mental health concerns, the first person to contact at Castle High School is:

11. How many students (roughly) have you referred for concerns about mental health in the school year 2019-2020? ***Not on the post-survey**

12. How many students have you referred in the current school year 2020-21? ***Not on the post-survey**

13. Please write any additional comments or concerns regarding student mental health issues you would like to see addressed.

Appendix D: 1-month Follow-up Survey

1. How confident are you identifying signs of possible mental health problems in your students (0 being no confidence and 5 being the most confidence)?

2. How confident are you in your knowledge and understanding of the current process for mental health referral at Castle HS (0 being no confidence and 5 being the most confidence)?

3. How would you rate your trust in the current mental health referral process (0 being no trust and 4 being the most trust)?

4. What are some things to look for in a student who is potentially suicidal (select all that apply)?

5. What are risk factors for depression (select all that apply)?

6. What are physical signs and symptoms of an anxiety disorder (select all that apply)?

7. What does the action plan acronym ALGEE stand for?

8. If you identify a student you would like to refer for mental health concerns, the first person to contact at Castle High School is:

9. Please write any additional comments or concerns regarding student mental health issues you would like to see addressed.

Appendix E

Summary Table

Author and Date	**Focus/Purpose**	**Stated Method**	**Sample Description**	**Main Findings**
1. Kidger, J., Stone, T. , Tilling, K., Brockman, R., Campbell, R., Ford, T., Hollingworth, W., King, M., Araya, R., & Gunnell, D. (2016)	To train teachers using the WISE (mental health first aid training) teach them to be peer support and see if it improves student outcomes	Qualitative data analysis	Pilot cluster randomized controlled trial. Intervention and control group used.	The MHFA training provided knowledge, skills, reassurance, and support for student mental health. It provided better knowledge and less stigmatization.
2. Fisher,H., Harding, S., Bell, S., Copeland, L., Evans, R., Powell, J., Araya, R., Campbell, R., Ford, T., Gunnell, D., Murphy, S., & Kidger, J. (2020)	To measure the reach and dosage of the MHFA training (uptake and fidelity)	Quantitative data analysis	2 schools were randomly selected from each stratum taking into account need to sample from different income levels. No control group	Findings suggest that it is possible to use the training to reach a high number of staff with good quality mental health training.
3. Jorm, A.F., Kitchener, B.A., Sawyer, M.G., Scales, H., & Cvetkovski, S. (2010)	To evaluate whether mental health first aid training improves teacher knowledge about mental health (including destigmatization)	Quantitative data analysis	Middle school teachers; any school in south Australia was eligible	Mental Health First Aid training has positive effects on teachers' mental health knowledge, attitudes, confidence and some behavioral aspects; limited indirect effect on students

4. Lillevolli, K.R., Vangberg, H.C.B., Griffiths, K.M., Waterloo, K., & Eisemann, M.R. (2014)	To see if internet-based cognitive behavioral therapy helps reduce depressive symptoms in adolescents	Quantitative	4 high schools in Norway that volunteered to participate (then students volunteered)- not random	The self-led therapy did not seem to help the students; in addition, they usually failed to log in or even continue the program. They concluded it was not helpful.
5. Stallard, P., & Buck, R. (2013)	To investigate the feasibility of delivering and evaluating a universal school-based depression prevention program for children 12-16 yrs.	Quantitative	Non-denomination comprehensive secondary schools- sent to 66 and 8 chosen for the study	Delivery of the intervention program is feasible.
6. Gould, M.S., Marrocco, F.A., Kleinman, M., Thomas, J.G., Mostkoff, K., Cote, J., & Davies, M. (2005).	To examine whether asking about suicidal ideation or behavior during a screening creates distress or suicidal thoughts for at risk students	Quantitative	Grades 9-12 at 6 high schools in NYC	Asking questions about suicide does not make students more suicidal in regular or at-risk students. It is safe to ask the questions.
7. Allison, V.L., Nativio, D.G., Mitchell, A.M., & Yuhasz, J. (2014).	To see whether early screening during their physical improved identification and referral rates.	Qualitative improvement initiative	Urban students at 6th and 9th grade state mandated physicals.	The interventions did improve the early identification and expedited referrals.

8. Ruble, A.E., Leon, P.J., Gilley-Hensley, L., Hess, S.G., Swartz, K.L. (2013)	To see if the Adolescent Depression Awareness Program improve knowledge and help seeking behaviors.	Quantitative	Male and female high school students in Tulsa, Oklahoma	The researchers did see an improvement in the knowledge and help-seeking behaviors.
9. Stallard, R., Phillips, R., Montgomery, A.A., Spears, M., Anderson, R., Taylor, J., Araya,R., Lewis, G., Ukoumunne, O.C., Millings, A., Georgiou, L., Cook, E., & Sayal, K. (2013)	To determine clinical effectiveness and cost effectiveness of school-based CBT in reducing depressive sxs in high-risk students	Quantitative	People who attended PHSE schools; Students 12-16 years old	While the interventions were helpful, they were not deemed cost-effective
10. Werner-Seidler, A., Perry, Y., Calear, A.L., Newby, J.M., & Christensen, H. (2017)	To provide a comprehensive evaluation of randomized-controlled trials of psychological programs, designed to prevent depression and/or anxiety in children and adolescents delivered in school settings.	Meta-analysis	Studies looking at mental health education/intervention for school-aged children.	There is merit in continuing to evaluate and deliver school-based prevention programs for depression and anxiety.

11. Brannlund, A., Strandh, M., & Nilsson, K. (2017)	The study aimed to examine the relationship between mental-health during adolescence and upper secondary school completion and grades.	Quantitative	All children born in Sweden in 1990 and who still lived in the country at the age of 20	This study shows the correlations between mental health and school outcomes.
12. Wei, Y., & Kutcher, S. (2014)	To study the "go-to" mental health training to see if it helped teachers with early identification and referral.	Quantitative	Secondary schools	Schools play an important role in early identification and referral of students with mental health conditions. The training was helpful. It helped teachers with confidence and attitudes as well.
13. Brooks, T., Harris, S. 14. K., Thrall, J. S., & Woods, E. R. (2002)	To examine the hypothesis that self-reported symptoms of depression and stress may be associated with other risk behaviors.	Quantitative	9th and 12th graders	Female gender had greater than threefold increased odds of reporting depression/stress. Other associations, with some gender differences, include older age, physical fights, non-use of birth control, lack of a healthy diet, and use of tobacco.

15. Vieira, M., Gadelha, A. A., Moriyama, T., Bressan, R., & Bordin, I. A. (2014)	To evaluate teachers' ability to identify and appropriately refer students with possible MHP, and the effectiveness of a psychoeducational strategy to build teachers' capability in this area.	Quantitative	32 teachers; 26 cases, 26 controls	Teachers were already able to identify the most symptomatic students, who had both internalizing and externalizing problems, as possibly having MHP, but teachers had difficulty in identifying students with internalizing problems alone. At least 50.0% of teachers learned to identify hypothetical cases as problematic and to make the appropriate referral, and 60.0% of teachers who before training could not identify normal adolescence learned to do so.

16. Samargia, L. A., Saewyc, E. M., & Elliott, B. A. (2006)	To assess the unmet mental health care needs of Saint Louis County, Minnesota, adolescents 16 years of age or in the 10th grade by (a) identifying the demographic characteristics of adolescents foregoing mental healthcare and (b) describing their reported barriers to accessing mental health services	Quantitative	Teens in St. Louis Co Minnesota	Overall, 57% of the youths reported foregoing mental health care at least once. Girls & adolescents living with both parents were significantly more likely to have foregone care. 2 barriers to accessing care: "Thought or hoped the problem would go away" (50%) and "Didn't want parents to know" (36%). School-based interventions should be sensitive to mental health needs, especially among girls and teens living in two-parent families.
17. Townsend, L., Musci, R., Stuart, E., Ruble, A., Beaudry, M.B., Sweizer, B., Owen, M., Goode, C., Johnson, S.J., Bradshaw, C., Wilcox, H., & Schwartz, K. (2018)	To determine if depression leads to challenges for learning in school	Quantitative	Adolescents 14-21 who were at risk for major depression	Positive school climate was associated with greater odds of depression literacy and endorsement of fewer stigmatizing beliefs among students.

18. Husky, M., Sheridan, M., McGuire, L., & Olfson, M. (2011, November 19)	1. To determine factors associated with the identification of high risk youth 2. To assess the extent to which at risk adolescents receive MHS in school and community.	Quantitative	Public high school students in Wisconsin	Systematic voluntary school-based mental health screening and referral offers a feasible means of identifying and connecting high-risk adolescents to school- and community-based mental health services, although linkages to community-based services may require considerable coordination.
19. Humensky , J., Kuwabara, S. A., Fogel, J., Wells, C., Goodwin, B., & Van Voorhees, B. W. (2010)	To determine if depression leads to challenges for learning in school	Quantitative	Adolescents 14-21 who were at risk for major depression	This study shows that adolescents at risk for depression perceive these symptoms as negatively affecting school performance. Notably, adolescents report that depressive symptoms leads to difficulties in coming to and concentrating in class and dealing with other students, and that struggles with school become a negative cycle.

20. Evans, R., Brockman, R., Grey, J., Bell, S., Harding, S., Gunnell, D., ... Kidger, J. (2018)	To study an intervention to improve the mental health support and training available to secondary school teachers through delivery of the training package Mental Health First Aid and a staff peer support service.	Quantitative, Qualitative	Secondary schools in England and Wales	The process evaluation embedded within the WISE cluster RCT will illuminate how and why the intervention was effective, ineffective or conferred iatrogenic effects. It will contribute to the refinement of the theory underpinning the intervention, and will help to inform any future implementation.

Appendix F

<u>Pre-Survey Free Text</u>

It seems like kids who have no strong parental/guardian figure at home - either they live with elderly grandparents or have no working contact info for the guardian - are the kids who are just totally lost in the shuffle. They have no one to advocate for them that is in the position to get them help. Parents and guardians need to be held more accountable since they are the only ones who can get these kids the professional help needed. We need their approval and support to get the ball moving and keep moving on our end.

Homelessness is a real problem; a lot of students are "doubled up" with other family or friends. Drugs and "fitting in". It would be helpful to have mini workshops for teachers/staff of not only warning signs to look for but physical signs as well.

I feel that there are not many supports for mental health both for students and teachers at Castle. There is also no clear referral system in place.

Issues need to be taken seriously

Probably would be good to have more counselors to assist in this particular area

Post Test Free Text

Thank you

I was surprised to learn that students aged 14 and older can get mental health services without parental consent. But I still feel that parents/guardians need to be held more accountable for making sure their children get the services they need both in school and outside of school.

Thank you for this valuable information.

Personally I have more students coming to me with personal and family issues since the onset of the pandemic and this confirms my process of sending to students to counselor or contacting our nurse practitioner.

Thanks for the info.

This presentation should be something that our admin takes time to make sure ALL staff watch this & not let it be "optional"

Mahalo for addressing mental health.

How effective has school-level counseling been (via counselors or school nurse) in helping students? I would like to see specific data for our school. What types of solutions (outside of the school) are provided to students that have mental health issues? How are parents informed about mental health issues so they can also be more cognizant of their child's well-being? I wholeheartedly support counseling, as long as it is appropriate, effective in improving their mental health, and provides coping strategies that they can use to strengthen their resolve and boost their self-confidence.

Thank you for all that you do! ;D

Thank you this was very helpful, and informative for our students.

After watching the presentation, I feel a little more confident and more aware of what are the possible signs of a person who has anxiety, depression, or suicidal thoughts. I also feel a little more confident and comfortable with the knowledge of who I can refer my students to if I have any concerns for their mental health (counselor, school nurse, or administrator).

Thank you for making the information easy to process.

Thank you for addressing this issue on campus!

Nice presentation

One Month Free Text
Oh wow! I may have forgotten some of the answers.
I would like to see presentations for students to learn the signs, symptoms, & where to get help, as well as for teachers to be aware of.
Thanks for the Starbucks! :)
It would be good to go over all of this information during a faculty meeting so everyone has some basic training regarding mental health issues and procedures.
I would be interested to learn about the effects covid is having on this issue. It seems as though there are a lot more students that exhibit signs mental illness. I don't know if it's because there is more awareness or other factors. Thanks again and good luck with your research