A revision and extension of the prevention of escalating adolescent crisis events (PEACE) protocol

By: **Kurt Michael, John Paul Jameson, Rafaella Sale, Carissa Orlando, Marisa Schorr, Morgan Brazille, Anne Stevens, Cameron Massey**

Abstract

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A revision and extension of the prevention of escalating adolescent crisis events (PEACE) protocol

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A B S T R A C T

The disparity between urban and rural suicide rates is increasing. In response to this major public health problem, clinicians and school mental health researchers designed a systematic crisis intervention protocol to be used with adolescents presenting with suicidal or homicidal ideation. The prevention of escalating adolescent crisis events (PEACE) protocol is a comprehensive risk assessment designed for use by licensed clinicians working collaboratively with school personnel. A revised and extended version of the PEACE protocol was employed during 68 crisis events involving 42 high school students in 2013–14. These results and clinical implications of utilizing a systematic protocol to address potential suicidal or violence threats are discussed.

Keywords:
Rural
Adolescent
Suicide
Violence
School-based
Risk assessment

1. Introduction

Between 1986 and 2000, the overall suicide rate in the U.S. declined from 12.5 to 10.4 suicides per 100,000 persons in the population. Since then however, the rates have gradually climbed back up to 12.6 suicide deaths per 100,000 persons in 2013 (Xu, Murphy, & Kochanek, in press). This translates to one suicide every 13 min, 111 suicides per day, 3429 per month, and a total of 41,149 completed suicides for the year. The suicide rates are almost twice as high in many rural regions in the U.S., especially in Alaska and the Rocky Mountain West (e.g., Montana, Utah, Wyoming, New Mexico, and Colorado). Suicide rates in the rural western states are alarming, yet many of the rural areas in other parts of the U.S. maintain a higher than average number of completed suicides as well. Moreover, the rural–urban discrepancies in suicide rates have worsened over time (Fontanella et al., 2015). These trends of relatively higher suicide rates and growing rural–urban disparities hold true in many less densely populated parts of rural Appalachia, including Kentucky, West Virginia, southwestern Virginia, and western North Carolina (Singh, Azuine, Siahpush, & Kogan, 2013).

Specifically for rural youth, Singh et al. (2013) reported that youth in the most rural areas of the country exhibited suicide mortality rates 84% higher than youth in highly urban areas after controlling for socioeconomic factors. Similarly, Fontanella et al. (2015) analyzed the longitudinal trends of those aged 10–24 years who completed suicide between 1996 and 2010 and reported that the rates for those in rural settings were almost double the rate of individuals living in urbanized regions. Particularly in western North Carolina (NC), adolescents have long reported risky behaviors associated with completed suicide, including depressed mood, suicidal ideation, planning, and attempts, at rates much higher than national averages. According to the data from the 2014 Youth Risk Behavior Survey (YRBS), 17.0% of students in one high school in western NC indicated that they "seriously considered committing suicide in the past 12 months" (Kirk, Jameson, Michael, & West, 2014), compared to 16.6% of students nationally in 2013 (United States Department of Health and Human Services (USDHHS), 2014). The prevalence rate of youth in western NC who reported a suicide attempt that resulted in an "injury requiring treatment" within the past year was 6.0% (Kirk et al., 2014), over twice the national average (2.4%; USDHHS, 2014).

Despite the sobering evidence that suicide is a major public health problem without signs of abatement, especially in rural settings, efforts to stem the tide have been limited either in scope or effectiveness (Fontanella et al., 2015; Hirsch, 2006). These disappointing results are, in part, explained by a number of barriers that preclude treatment seeking in rural settings, including lack of access to qualified providers, economic and transportation limitations, and stigma (Hirsch & Cukrowicz, 2014). However, there have been several innovations in recent years that have been designed to provide better access to behavioral health care in rural settings, such as integrated primary care (Evans, Polaha, Valleley, Jones-Hazeldine, & Foster, 2006) and school mental health (SMH; Michael, Renkert, Wandler, & Stamey, 2009). Consequently,

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these paradigms are well-positioned to respond to this persisting public health crisis.

1.1. School mental health

Providing mental health services within the school context is a sensible method of addressing some of the most common barriers to treatment seeking among adolescents in rural areas (Owens, Murphy, Richerson, Girio, & Himawan, 2008; Owens, Watabe, & Michael, 2013). Advocacy organizations such as the North Carolina Youth Suicide Prevention Task Force, a group supported by the North Carolina Institute of Medicine (NCIOM), have recommended that school mental health (SMH) programs lead some of the broad-based suicide prevention efforts (NCIOM, 2012). However, most of the prevention programs are educational in nature (i.e., universal) and are not equipped to provide selected or indicated interventions to students who have been identified as exhibiting a risk of suicide (see Cooper, Clements, & Holt, 2011 for a review). Prevention programs such as gatekeeper training have been shown to improve knowledge, attitudes, and skills, but effects on suicide rates are largely unknown (Isaac et al., 2009; Katz et al., 2013). Further, existing practice parameters for responding to suicide threat (e.g., American Academy of Child and Adolescent Psychiatry, 2001) do not include specific recommendations for implementing crisis response protocols in school settings, and few studies have examined interventions that consider suicidal intent (De Silva et al., 2013). Based on a systematic review of programs aimed at responding to suicidal youth, Robinson et al. (2013) reported that the evidence for indicated interventions is limited and cautioned against using such approaches in non-clinical settings. Given that many SMH paradigms effectively function as clinical settings within the context of schools, they are amenable to the inclusion of indicated interventions as part of a comprehensive suicide prevention strategy.

One such example is the Assessment, Support, & Counseling (ASC) Center, a comprehensive SMH program conducted through a university–community partnership in western NC. The original program was developed in one local school district approximately 10 years ago by licensed clinicians employed by a local university in conjunction with professional school staff (e.g., administrators, professional school counselors, teachers) to provide mental health services in the place where adolescents can most easily access them. Since the initial partnership, ASC Centers have been implemented in two additional districts. Each ASC Center site has been tailored to address the specific needs of the community where it exists, but the primary services include assessment, individual and group therapy, consultation, professional development, and crisis intervention. Referrals are made predominantly by professional school counselors and administrators when it has been determined that the mental health needs of the student exceed the school's capacity to address them adequately in the context of staff's existing professional roles. On average, well over half of the referrals to the ASC Center are for internalizing problems (i.e., depression, anxiety, non-suicidal self-injury, suicidal ideation, and suicidal intent). The benefits of the ASC Center have been documented in the literature, both in terms of a reduction in overall psychological distress (Albright et al., 2013) and a modest impact on academic outcomes (Michael et al., 2013).

The establishment of a new partnership with an additional local rural school district in 2012 raised unique challenges to the ASC Center model because of the high volume of crisis incidents handled by clinicians and the results from behavior risk surveys of the high school student body that found self-report rates of suicide attempts to be significantly higher than state and national averages (see Kirk et al., 2014). Out of necessity, ASC Center clinicians and school staff collaborated to develop a systematic and repeatable set of procedures to respond appropriately and expeditiously to a high number of youth who present with a risk of violence to self or others. Thus, in 2012, the prevention of escalating adolescent crisis events (PEACE) protocol was developed and first implemented (Sale, Michael, Egan, Stevens, & Massey, 2014). The purpose of the PEACE protocol was to ensure thorough and systematic evaluation of risk for suicide, homicide, or non-suicidal self-injury for self-referred, peer-referred, or school personnel-referred students, and guide decision making for treatment, safety planning, and referral based upon level of risk. The PEACE protocol facilitated this process by providing ASC Center staff and school personnel with clear roles, a systematic set of procedures for response, and a common language to assess and intervene with at-risk youth. During the first year of implementation, PEACE was utilized 33 separate times across 20 individuals. Each instance resulted in a successful de-escalation of the crisis and often a referral to a higher level of care (e.g., hospitalization), outpatient treatment, or an increased dosage or revision to the current psychotherapeutic treatment (Sale et al., 2014).

The purpose of this paper is to further describe the PEACE protocol after its initial pilot year (2012–13) and to report the results from the 2013–14 year. The tool underwent further revision since it was first developed and was adapted in response to feedback from school personnel, caregivers and students, in addition to others involved. Risk factors within the extant literature such as behaviors leading up to a violent threat were reexamined to further bolster the evidential support for each criterion within each subcategory and to make the tool more user friendly by providing real-world examples for some of the bullet point criteria (see Appendix A). To further increase utility, checkboxes were added to encourage follow through within each plan of action section. Participation of school resource Officers (SROs) was included to facilitate response to homicidal threat and encourage broader inclusion of school personnel as part of a comprehensive school crisis response plan. Furthermore, the current study a) reports the results from the subsequent year of implementation after the initial demonstration project, b) reassesses the utility of this protocol by benchmarking utilization to other sources of existing data, and c) discusses limitations in addition to areas for improvement for the following year of utilization.

2. Method

2.1. Setting

The PEACE protocol was implemented in a rural high school in western NC. According to the U.S. Department of Agriculture (USDA) Rural–Urban Continuum Code system, the county in which the district is located is classified as a 7 (nonmetropolitan county with an urban population of 2500 to 19,999, not adjacent to a metropolitan area; USDA, 2013). Serving as the only high school within the district, the enrollment was approximately 900 students as recorded during the fall semester of 2013. The vast majority of students at the school (90.5%) described themselves as Caucasian ($n = 797$), and 9.5% of students described themselves as belonging to a racial group other than Caucasian ($n = 84$) during the 2013–2014 school year (Kirk et al., 2014).

2.1.1. Clinicians

The ASC Center at this high school was staffed by two master's level licensed psychological associates and one graduate-level intern, all under the weekly supervision of one licensed doctoral clinical psychologist. ASC Center personnel participated in weekly scheduled staff meetings with professional school counselors, one registered nurse, and an assistant principal. Additionally, ASC Center clinicians consulted regularly with other personnel such as teachers and community agencies including law enforcement, the Department of Social Services, and representatives from community mental health as deemed appropriate.

2.1.2. Crisis Protocol

The PEACE protocol provides an easily accessible guide for school-based clinicians and personnel when a student who is at risk for harm towards self or others is identified (see Appendix A). The PEACE protocol utilizes a color-coded system that categorizes risk as Green, Yellow, Orange, or Red, specifying increasingly higher levels of risk severity. A

student's risk level is determined by the assimilation and comprehensive evaluation of the following information: self- and other-reports of such student's behavior, mood, and intent; clinician-observed mood and behavior of the student; protective factors such as access to a support network or attentive caretaker; potential risk factors including access to means. Each level of risk indicates a list of prescribed steps and actions that must immediately be initiated and completed by the involved clinician, supervisor, and school personnel. Steps associated with each level are detailed and include follow-up instructions in order to help prevent a further escalation or catastrophic event. If the student's risk factors and behaviors fall into more than one category (e.g., risk that includes characteristics of both Codes Yellow and Orange), actions for the code indicating a higher risk severity are taken.

2.1.3. Procedure

Ideation or intention for violence can be reported either by the student or another person (e.g., peer, teacher). In addition to accessibility for first-person reporting, three locked drop-boxes were positioned within the school building for anonymous reporting and checked daily by ASC Center clinicians. Possible scenarios for the detection of violent ideation or intent are widely variable; examples include a teacher who receives a writing assignment with suicidal or homicidal content, a peer who discloses concern over a friend's post on social media, a principal that notices labile behavior during a disciplinary event, or a school counselor unsure about the severity of a student's ideation.

Although the circumstances leading to implementation of the PEACE protocol are varied, the vast majority of cases follow a general sequence of events. Once a school professional becomes aware that a student is exhibiting suicidal or homicidal ideation within the school, a professional school counselor or school-based clinician is notified and makes arrangements to meet with the student in question immediately. If the school counselor is notified first, he or she utilizes the protocol to provide an initial assessment of risk. If the school counselor determines that the student is a significant risk (i.e., Code Yellow or above), a school-based clinician is requested for consultation. At times, ASC Center clinicians are notified directly and begin the evaluation immediately, updating the school counselor when he or she becomes available. Once involved, the clinician integrates information provided by other sources with a more thorough assessment of risk, including but not limited to suicidal or homicidal intent, plan, and potential risk factors from the student. As the information is gathered, it is mapped carefully onto the PEACE protocol. Once the most appropriate code is determined, an individually-tailored plan of action is formulated and executed. Additionally, plans for postvention (e.g., subsequent follow-up plan or school reintegration plan if student hospitalized) are considered in the respective plan of action.

3. Results

During the 2013–2014 school year, 42 students (approximate base rate = 4.6%) were involved in a total of 68 separate crisis events that required approximately 103 h of documented clinical time. Documented clinical time or "crisis hours" included time a school-based clinician spent assessing the crisis severity with a student, school counselor, teacher or school administrators, consulting with colleagues and supervisors, meeting and safety planning with family members, constructing a suicide or homicide prevention plan with the student and other necessary personnel, documenting event(s), and following-up with parent(s) and the student post-crisis. Of the 68 crisis events, 34 (50%) were categorized as Code Green, 16 (24%) as Code Yellow, 9 (13%) as Code Orange, and 9 (13%) as Code Red. The average time spent per event for each code differed greatly, with less than one hour on average spent working with a Code Green crisis situation, to approximately three hours spent per Code Orange and Code Red crisis situation. On average, approximately half an hour was spent with students that were referred for a crisis evaluation but who did not endorse suicidal or violent ideation nor a plan that would constitute further action (i.e., Code Green; see Appendix A). At the opposite extreme, a student that was referred for a crisis evaluation and upon questioning revealed information that mandated emergency action took approximately three hours on average. This time was most often split among the initial evaluative meeting, events described within the Plan of Action subsection of Code Red (see Appendix A), communication with community crisis response professionals, and follow up check-ins with the student and caregiver either in person or by phone.

An approximately equal number of female (52%) and male (48%) students were assessed with the PEACE protocol. The majority of students evaluated with the PEACE protocol were Caucasian (90.5%) and the remaining 9.5% were non-Caucasian, proportions that mirror the school's demographics. Most of students presenting for crisis were in either in 9th (33%) or 11th (36%) grade, whereas a comparably smaller percentage of 10th and 12th graders (14% and 17%, respectively) presented for evaluation. Of these events, 66 (97%) were suicidal and 2 (3%) were homicidal in nature. Unassociated with threat level, the majority of students reported access to means, such as prescription medication and firearms. While the median and modal number of events was one, a small subsample ($n = 10$; 23.8%) of the larger sample ($n = 42$) were assessed with the PEACE protocol on multiple occasions. These ten students accounted for 32 (47.1%) of the 68 total events, 12 of the 34 Code Green events (35.3%), 8 of the 16 Code Yellow events (50%), 5 of the 9 Code Orange events (55.6%), and 7 of the 9 Code Red events (77.8%). Thus, among those students served by the PEACE protocol included several with more severe risks a higher chance of being seen more than once, including those that were eventually hospitalized.

Across all 42 students, there were no completed suicides or suicide attempts that necessitated medical intervention immediately after (i.e., within the same day) the protocol administration was completed. Five students were deemed as eminently at risk for self-harm and were subsequently hospitalized after PEACE administration or within the 2 weeks after the initial assessment by ASC Center staff. In one case, a student was hospitalized twice within the same school year. There was one case of medication overdose that required medical intervention with a student assessed with the PEACE protocol several months following the ASC Center's evaluation.

A substantial number of students enrolled in mental health services after the initial crisis event was resolved. Thirty-three of the 42 students assessed with the PEACE protocol were not receiving additional school mental health services at the time of the crisis. Fourteen students were referred for SMH services post-crisis; 9 of these 14 were successfully enrolled into SMH services and remained in treatment until the end of the school year. For reasons pertaining to the severity of the crisis or student/family preference, 6 additional students were referred out to community providers. Students presenting with less severe crises (i.e., Code Green) were presented with the option of therapy or invited to participate in regular check-ins by either a school-based clinician or a professional school counselor as deemed appropriate.

4. Discussion

The PEACE protocol was developed and implemented as part of a pre-existing school mental health program in a setting where the base rates of adolescents who report a suicide attempt that required medical intervention during the past 12 months is well over double the national average (Kirk et al., 2014). Although it is impossible to determine whether the PEACE protocol directly impacted those who reported a history of these risk behaviors, the data from the first two years of implementation resulted in zero completed suicides or attempts after intervention. In contrast, at least one adolescent of high school age died by suicide in three of the four years prior to implementation (North Carolina State Center for Health Statistics, 2014). Though no causal inferences can be made from these data, this trend represents a suggestion of potential positive impacts, albeit based on weak and circumstantial evidence. These results could be attributable to at least

two factors: 1) a low base rate of suicidal attempts overall during this time period, and 2) the fact that almost 75% of the crises observed during the course of the study were determined to be at a lower level of severity (i.e., Green or Yellow) but still came to the attention of the PEACE team. Thus, the former suggests good fortune whereas the latter suggests something more predictable. Indeed, the very presence of a set of policies and procedures designed to address potentially lethal behaviors exhibited by youth might lead to higher recognition and utilization (i.e., number of referrals) during the initial stages of implementation. This might be an especially relevant factor in western NC given the longstanding history of having insufficient systems to address mental health ailments including suicide for adolescents in the region. In other words, the community was ready for such a protocol, more than willing to refer youth for assessment and erred on side of caution.

Another way to consider these results is the impact on the school system as a whole. That is, the PEACE protocol required effective communication about school safety across professions and systems of youth engagement, including educators, student support professionals, administrators, community agencies, clinicians, families, and of course the youth themselves. All of these constituent groups appeared to acknowledge the phenomenon and accept responsibility for management of the same. Effective crisis intervention hinges on a timely response to students in critical need with the goal of reducing morbidity and mortality related to suicide (Gould, Greenberg, Velting, & Shaffer, 2003). However, suicide crisis response in rural areas is beset by numerous challenges (Varia, Ebin, & Stout, 2014). Clarifying roles of clinicians and school personnel using a detailed, hierarchical response plan such as the PEACE protocol may reduce the stress inherent in responding to teens in crisis and prevent diffusion of responsibility among staff and promote the effective use of the frequently scant resources available for crisis response in rural schools. Such detailed planning may also improve sense of efficacy among school counselors, an important factor given that a substantial proportion report feeling undertrained to effectively deal with crises (Allen et al., 2002). Additionally, improving communication among all stakeholders in response to a crisis may demonstrate to students that their concerns are taken seriously and that all parties involved are genuinely concerned with their safety and well-being.

The utilization of a systematic protocol to guide crisis response and risk assessment may also serve to counter some incorrect assumptions that school staff, parents and students may have regarding what actually happens during a crisis assessment. Relatively few students (12%) with whom the PEACE protocol was used required psychiatric hospitalization; refuting the stereotype that disclosing suicidal ideation uniformly leads to being hospitalized. Although five students were subsequently hospitalized after the PEACE protocol, the manner in which these cases were subsequently managed was impacted by the presence of the PEACE structure in an otherwise remote school. That is, there are fewer options for hospitalization and a dearth of outpatient mental health services available for follow-up care in rural settings (Rost, Zhang, Fortney, Smith, & Smith, 1998).

Although more severe crisis situations (i.e., Codes Orange and Red) were not as common in the present study overall, these more significant events accounted for a comparable percentage of clinical hours and averaged notably more time per event than less severe codes. Furthermore, even though immediate hospitalization was not common, ten students required assessment using the PEACE protocol on more than one occasion. These ten students accounted for nearly half of the crisis events during the 2013–2014 academic year, and more than three-quarters of the most serious events. This highlights the need for careful monitoring and follow-up care for students who present with repeated and severe crisis events, as these cases are also associated with higher long-term risk and consequently require effective longer-term management. The detailed steps contained within the PEACE protocol can aid in the determination of safety-based steps for longer-range treatment planning including preemptive plans to contact a mobile crisis service, the ongoing consideration of psychiatric hospitalization, and rapid enrollment in outpatient mental health services.

Although hospitalization might not be indicated in every severe crisis situation, thorough assessment, collaboration with both school and community personnel and effective outpatient management are essential elements in maintaining the health and safety of the youth in schools, both immediately after a crisis and over a longer period of time. In fact, based on CDC data regarding those hospitalized for psychiatric conditions (e.g., mood disorders) the length of stay was more than twice as long in 1990, over 2 weeks, as it was in 2009–10, less than a week (National Center for Health Statistics, 2013). Thus, although psychiatric hospitalization might be a reasonable stop-gap solution in acute cases, it does not represent a feasible short-term solution given the emerging pattern of shorter lengths of stay. In fact, there is evidence that acute adolescent suicidal crises can be effectively managed through rapid-response outpatient therapy that is actually associated with lower subsequent hospitalization rates when compared to no-treatment controls at follow-up (Greenfield, Larson, Hechtman, Rousseau, & Platt, 2002).

Although the PEACE protocol is designed for both suicidal and homicidal crises, it is meaningful to note that homicidal crises accounted for a substantial minority of the crisis events (3%) observed during the 2013–2014 academic year. The risk of violence towards others is a predominant concern among school personnel, and such focus is understandable given the substantial media attention paid towards mass school shootings. However, these data are consistent with the notion that suicide presents a greater threat to student mortality than mass school violence.

4.1. Limitations

The PEACE protocol is relatively new and is not without its limitations. The protocol is largely based upon spontaneous referrals that are subject to distortion because of stigma, fear of consequences for reporting suicidal ideation, and perceived social pressures. Therefore, it is crucial for clinicians to take into consideration other-report, academic, and observational data when deciding on risk level and subsequent course of action. Moreover, given the potential for serious consequences in crisis response and risk assessment, we highly recommended that the protocol only be used by licensed mental health clinicians within the school building or experienced trainees under the direct supervision of a licensed psychologist or other licensed mental health professional *in collaboration with*, and not solely by, school personnel.

Although the PEACE protocol contains detailed behavioral/risk descriptions for each code classification, it is important to note that the intent of the protocol is to provide concrete descriptive guidelines to aid in decision making, not to provide a prescriptive course of action that is inflexible to the idiosyncrasies of each individual case. Therefore, utilization of PEACE still requires considerable professional judgment and responsible consultation with colleagues during crisis events. As such, it is not necessary for all criteria of a particular code to be met in order for the recommended plan of action for that code to be carried out. For instance, if a student is engaging in self-injurious behavior that is extensive or consistent but describes this as being unrelated to a desire to die (e.g., a Code Yellow behavior) it may be more appropriate for the clinician to notify the student's parents or caretaker of this behavior—a Code Orange response. Additionally, if a student's perceived level of risk appears to fall between two color codes, it is recommended to assume the higher code and engage in the prescribed steps indicated for that code. For instance, a student may meet criteria for a Code Yellow crisis, but because of additional risk factors (e.g., a history of impulsive behavior, lack of adequate supervision in the home), steps indicated for Code Orange may be more appropriate for that specific student. Although this approach may appear to endorse "over" reaction, the high stakes of violence necessitate tolerance of an overabundance of caution.

In comparing the students seen via crisis during the 2013–2014 school year with known risk behavior assessed via the 2014 YRBS (Kirk et al., 2014), it appears that a substantial proportion of students reporting suicidal thoughts likely went undetected. The students that presented for crisis through the ASC Center during the 2013–2014 school year represent just under 5% of the student body, whereas 17.0% of students reported seriously considering suicide in 2014 according to the school-wide behavior risk survey (Kirk et al., 2014). This discrepancy highlights a limitation of the PEACE protocol, in that it does not constitute a surveillance system for suicidal ideation. In order to maximize the effectiveness of this protocol, we recommend that it be used in conjunction with universal suicide prevention protocols (e.g., Substance Abuse and Mental Health Services Administration, 2012).

4.2. Conclusions and Future Directions

It is regrettable that a substantial number of youth, especially in rural schools, regularly suffer in silence from impairing maladies including depression and suicidal ideation. Although these public health problems show little signs of abatement, we must remain committed to developing both better identification and intervention systems for the youth at risk for violence towards self and others. The PEACE protocol described in this study appears to be beneficial on both fronts, including utility in managing the short- and longer-term risks among those identified and immediate referrals for outpatient psychotherapy to reduce suicide risk. However, more research should be conducted to demonstrate the value of this particular crisis response system. For example, the perceived value of the PEACE protocol among school personnel has not been investigated beyond anecdotal reactions to its use and implementation. Because teachers, counselors, and administrators often initiate the crisis response in schools, their attitudes towards the use of this more formalized procedure are critical to its successful and sustainable use. Further, the use of the PEACE protocol could be tested in additional settings. Though initially designed for use with adolescents in schools, the PEACE protocol may be suitable for use in hospitals, detention centers, and residential treatment facilities. Finally, future projects should examine the effectiveness of the PEACE protocol in other age groups.

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Appendix A. Prevention of Escalating Adolescent Crisis Events (PEACE)

Green:

- Current fleeting, superficial ideation
- Some past ideation or intent
- No current intent or plan

Plan of action

- ☐ Document time and extent of past or fleeting ideation
- ☐ Assess coping skills

Yellow:

- Current thoughts of hurting self or other(s), but mildly to moderately intense
- Labile mood or greatly affected emotionally by external circumstances
- Vague/ambivalent intention to hurt self or other(s)
- Self-injurious behavior may be present, but explicitly not related to desire to die
- If homicidal nature, no specific target (ex. expresses desire to hurt people in general), nor specific type of group (ex. religious affiliation, sexual orientation)
- No specific plan or unrealistic/unreasonable plan (ex. holding one's breath)
- No or unreliable access to means
- Some risk factors with at least 1 protective factor (see back of page)

Plan of action

- ☐ Further discussion is absolutely necessary
- ☐ Assess and discuss alternative coping skills
- ☐ Refer for services or modify treatment goals to include relaxation exercises/stress management
- ☐ Use professional judgment and decide whether to notify school personnel
- ☐ Seek consultation from a colleague w/o breaking confidentiality
- ☐ Document all steps taken
- ☐ Follow up with the student within the week, preferably next day

Orange:

- Current suicidal or homicidal ideation and intent
- Realistic and specific plan of hurting self or other(s)
- Potential but not definite access to means
- Self-injurious behaviors that are moderate to extensive in frequency or severity and/or related to desire to die
- Definite risk factors w/at least 1 protective factor

Plan of action

- ☐ Seek consultation from colleague, preferably a licensed mental health professional
- ☐ Contact parents of student for emergency meeting
- ☐ Consult w/community provider's mobile crisis team
- ☐ Notify school personnel & set up meeting with school personnel to be present in parent meeting
  - ▪ School principal involvement is optimal
  - ▪ If homicidal situation, Service Resource Officer (SRO) is optimal
- ☐ Involve individuals that are important in student's life (ex., coach) but not those who may project guilt/shame
- ☐ During family meeting ➔ Complete Safety Plan w/student & Parental Acknowledgement Form
- ☐ Homicidal: assert Duty to Warn ➔ notify individual who has been threatened & parents of threatened student
- ☐ Document all events and those involved
- ☐ Follow-up with student before class begins the following morning
- ☐ Enroll for psychological services, if not already

Red:

- Current suicidal or homicidal ideation and intent
- Realistic and specific plan for hurting self or other(s)
- If homicidal, clear target or group of individuals
- Have prepared for violence (ex., collecting pills, purchased a gun)
- Self-injurious behavior extensive in frequency or severity and/or related to desire to die.
- Risk further heightened if there has been past attempts or legal allegations/charges of student harming others
- Access to reliable means
- Several risk factors w/no or weak protective factors

Plan of action

- ☐ Seek consultation from colleague, preferably a licensed mental health professional
- ☐ Contact parents immediately for emergency meeting
- ☐ Contact community provider's mobile crisis team immediately
- ☐ Notify school principal and school guidance counselor
- ☐ Schedule immediate meeting for that day with the student, parent(s), school personnel, and any other relevant individuals
  - ▪ If homicidal, include SRO
  - ▪ If not hospitalized, complete Safety Plan w/student & Parental Acknowledgement Form
- ☐ Homicidal: assert Duty to Warn ➔ notify individual who has been threatened & parents of threatened student
- ☐ Document all events and those involved
- ☐ Follow-up with student and parents the hour in which the student returns to school; ask counselor to help w/this
- ☐ Enroll or refer out for intensive psychological services

References

Albright, A., Michael, K.D., Massey, C., Sale, R., Kirk, A., & Egan, T. (2013). An evaluation of an interdisciplinary rural school mental health programme in Appalachia. *Advances in School Mental Health Promotion*, *6*, 1–14.

Allen, M., Burt, K., Bryan, E., Carter, D., Orsi, R., & Durkan, L. (2002). School counselors' preparation for and participation in crisis intervention. *Professional School Counseling*, *6*, 96–102.

American Academy of Child and Adolescent Psychiatry (2001). Practice parameters for the assessment and treatment of children and adolescents with suicidal behavior. *Journal of the American Academy of Child and Adolescent Psychiatry*, *40*, 24S–51S suppl.

Cooper, G.D., Clements, P.T., & Holt, K. (2011). A review and application of suicide prevention programs in high school settings. *Issues in Mental Health Nursing*, *32*, 696–702. http://dx.doi.org/10.3109/01612840.2011.

De Silva, S., Parker, A., Purcell, R., Callahan, P., Liu, P., & Hetrick, S. (2013). Mapping the evidence of prevention and intervention studies for suicidal and self-harming behaviours in young people. *Crisis: The Journal of Crisis Intervention and Suicide Prevention*, *34*(4), 223–232.

Evans, J.H., Polaha, J., Valleley, R.J., Jones-Hazeldine, C., & Foster, N.L. (2006). Behavioral health services in rural pediatric primary care. *Journal of Rural Mental Health*, *31*, 28–35.

Fontanella, C.A., Hiance-Steelesmith, D.L., Phillips, G.S., Bridge, J.A., Lester, N., Sweeney, H.A., & Campo, J.V. (2015). Widening rural–urban disparities in youth suicides, United States, 1996–2010. *Jama Pediatrics*http://dx.doi.org/10.1001/jamapediatrics.2014.3561.

Gould, M.S., Greenberg, T., Velting, D.M., & Shaffer, D. (2003). Youth suicide risk and preventive interventions: A review of the past 10 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, *42*, 386–405.

Greenfield, B., Larson, C., Hechtman, L., Rousseau, C., & Platt, R. (2002). A rapid-response outpatient model for reducing hospitalization rates among suicidal adolescents. *Psychiatric Services*, *53*, 1574–1579.

Hirsch, J.K. (2006). A review of the literature on rural suicide: Risk and protective factors, incidence, and prevention. *Crisis*, *27*, 189–199. http://dx.doi.org/10.1027/0227-5910.27.4.189.

Hirsch, J.K., & Cukrowicz, K.C. (2014). Suicide in rural areas: An updated review of the literature. *Journal of Rural Mental Health*, *38*, 65–78. http://dx.doi.org/10.1037/rmh0000018.

Isaac, M., Elias, B., Katz, L.Y., Belik, S.L., Deane, F.P., Enns, M.W., ... Sareen, J. (2009). Gatekeeper training as a preventive intervention for suicide: A systematic review. *Canadian Journal of Psychiatry*, *54*, 260–268.

Katz, C., Bolton, S., Katz, L., Isaak, C., Tilston-Jones, T., Sareen, J., & Swampy Cree Suicide Prevention Team (2013). A systematic review of school-based suicide prevention programs. *Depression and Anxiety*, *30*, 1030–1045. http://dx.doi.org/10.1002/da.22114.

Kirk, A., Jameson, J.P., Michael, K., & West, S.T. (2014). *Youth risk behavior survey: Western North Carolina county high school*. Boone, NC: Appalachian District Health Department; Appalachian State University.

Michael, K.D., Albright, A., Jameson, J.P., Sale, R., Kirk, A., Massey, C., & Egan, T. (2013). Does cognitive-behavioral therapy in the context of a rural school mental health program have an impact on academic outcomes? *Advances in School Mental Health Promotion*, *6*, 247–262. http://dx.doi.org/10.1080/1754730X.2013.832006.

Michael, K.D., Renkert, L.E., Wandler, J., & Stamey, T. (2009). Cultivating a new harvest: Rationale and preliminary results from a growing interdisciplinary rural school mental health program. *Advances in School Mental Health Promotion*, *2*, 40–50.

National Center for Health Statistics. (2013). Health, United States: With special features on prescription drugs. Retrieved from http://www.cdc.gov/nchs/hus/mentalhealthhtm#access

North Carolina Institute of Medicine (2012). Suicide prevention and intervention plan: A report of the NCIOM task force on suicide prevention and intervention. Retrieved from http://www.nciom.org/wp-content/uploads/2012/08/SuicidePrev-report_web.pdf

North Carolina State Center for Health Statistics. (2014). Vital statistics: Detailed mortality statistics, North Carolina residents. Retrieved from http://www.schs.state.nc.us/data/vital.cfm

Owens, J.S., Murphy, C.E., Richerson, L., Girio, E.L., & Himawan, L.K. (2008). Science to practice in underserved communities: The effectiveness of school mental health programming. *Journal of Clinical Child and Adolescent Psychology*, *37*, 434–447. http://dx.doi.org/10.1080/15374410801955912.

Owens, J.S., Watabe, Y., & Michael, K.D. (2013). Culturally responsive school mental health in rural communities. In C.S. Clauss-Ehlers, Z. Serpell, & M.D. Weist (Eds.), *Handbook of Culturally Responsive School Mental Health: Advancing Research, Training, Practice, and Policy* (pp. 31–42). New York, NY: Springer.

Robinson, J., Cox, G., Malone, A., Williamson, M., Baldwin, G., Fletcher, K., & O'Brien, M. (2013). A systematic review of school-based interventions aimed at preventing, treating, and responding to suicide-related behavior in young people. *Crisis: The Journal of Crisis Intervention & Suicide Prevention*, *34*, 164–182. http://dx.doi.org/10.1027/0227-5910/a000168.

Rost, K., Zhang, M., Fortney, J., Smith, J., & Smith, G.R. (1998). Rural–urban differences in depression treatment and suicidality. *Medical Care*, *36*, 1098–1107.

Sale, R., Michael, K.D., Egan, T., Stevens, A., & Massey, C. (2014). Low base rate, high impact: Addressing teen suicide in rural Appalachia. *Report on Emotional & Behavioral Disorders in Youth*, *14*. (pp. 4–8).

Singh, G.K., Azuine, R.E., Siahpush, M., & Kogan, M.D. (2013). All-cause and cause-specific mortality among US youth: Socioeconomic and rural–urban disparities and international patterns. *Journal of Urban Health*, *90*, 388–405. http://dx.doi.org/10.1007/s11524-012-9744-0.

Substance Abuse and Mental Health Services Administration (2012). *Preventing Suicide: A Toolkit for High Schools. HHS Publication No. SMA-12-4669*Rockville, MD: Center for Mental Health Services, Substance Abuse and Mental Health Services Administration.

United States Department of Agriculture: Economic Research Service (2013). 2013 Rural–Urban Continuum Codes. Retrieved from http://www.ers.usda.gov/data-products/rural-urban-continuum-codes.aspx

United States Department of Health and Human Services (2014). Youth Risk Behavior Surveillance — United States, 2013. Retrieved from http://www.cdc.gov/mmwr.pdf

Varia, S.G., Ebin, J., & Stout, E.R. (2014). Suicide prevention in rural communities: Perspectives from a community of practice. *Journal of Rural Mental Health*, *38*, 109–115. http://dx.doi.org/10.1037/rmh0000019.

Xu, J. Q., Murphy, S. L., Kochanek, K. D. (2015). Deaths: Final data for 2013. National vital statistics reports. Retrieved from http://www.cdc.gov/nchs/data/nvsr/nvsr64/nvsr64_02.pdf, (in press)