

Investigative Project

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How Well Do Providers Screen for Depression and Suicide in Adolescents?

Investigative Project

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requirements for the degree of Master of Science in Nursing
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CHAPTER I

Introduction

Identification of problem

The national incidence of suicide among teenagers continues to be of significant concern. The National Institutes of Mental Health (NIMH) reported in the year 2000 that suicide ranked as the third leading cause of death among 15-24 year olds for a national average of 10.4% of every 100,000 persons in this age group (NIMH, 2003). The United States Department of Health and Human Services (USDHHS) reported that more teenagers and young adults die from suicide than from heart disease, birth defects, Acquired Immunodeficiency Syndrome (AIDS), cancer, stroke, pneumonia and influenza, and chronic lung disease *combined* (2003). Their statistical findings further determined that the incidence of suicide among adolescents and young adults nearly tripled between 1952 and 1995. For the year 2000, the Substance Abuse and Mental Health Services Administration (SAMHSA) researchers found that approximately three million youths were at risk for suicide (2003). Of those youths identified, 37% had actually attempted suicide during the previous year. SAMHSA has also found a correlation between substance abuse and suicide: Youths who reported drug or alcohol abuse were as much as 29% *more* likely to be at risk for suicide than those who did not use these substances (2003). This statistic indicates that youths who abuse drugs or alcohol and also consider killing themselves are 66% more likely to be at serious risk for suicide.

Background and Significance

Research indicates that suicide can be prevented with early screening and treatment (SAMHSA, 2003). Unfortunately, 36% of those respondents who were considered “at risk” had not received any type of treatment (2003). While providers routinely screen for medical conditions, there has been no consistent, organized system for comparable routine screening for depression or other mental disorders. It has been reported that over 50% of patients suffering from some form of mental disorder are seen only by their primary care provider (Cappelli, et al.,1995). This suggests that screening measures within the out-patient primary care setting can help to identify those adolescents who are considered at high risk. However, research has shown that medical residents who work with children and adolescents are not likely to screen adolescents for high risk behaviors due to their low comfort levels and lack of time (Middleman, Binns & Durant, 1995).

The American Medical Association (AMA) has established guidelines that address the manner in which adolescent health care is provided (1997). Their guidelines call for adolescent preventive visits every one to three years. These visits should incorporate primary and secondary levels of prevention of many of the major health threats facing today’s youth (including depression and suicide). Specifically, provider assessments should be conducted in a manner that allow for the identification of adolescents who have recently begun, are considering, or have escalated health risk-behaviors. The preventive visit guidelines also include the identification of adolescents who show signs of early physical or emotional disorders (AMA, 1997). Specific guidelines for comprehensive adolescent preventive services

visits included: 1) Promoting adjustment to puberty and adolescence, 2) promoting safety and injury prevention, 3) promoting healthy psychosexual adjustment and preventing the negative health consequences of sexual behaviors, 4) preventing the use of tobacco products, 5) preventing the use of alcohol and other drugs, 6) preventing severe or recurrent depression and suicide, 7) preventing physical, sexual and emotional abuse, and 8) preventing infectious disease (1997).

Developed by the Centers for Disease Control and Prevention (CDC), the Youth Risk Behavior Surveillance System (YRBSS) represents an 84 question screening tool to assist providers in the monitoring of health behaviors that would place adolescents at high risk for depression and suicide (Brener, Kann, McManus, Kinchen, Sundberg, & Ross, 2002). The national 2001 YRBSS demonstrated a significant association between the experience of youth depression and suicide. During the 12 months preceding the survey, 28.3% of students responding reported feeling such severe sadness and hopelessness every day for at least two weeks in a row that they stopped doing some of their usual activities. Also, during the 12 months preceding the study period, 19% of the students had seriously contemplated committing suicide, 14.8% had made a specific plan to commit suicide, and 8.8% had actually attempted suicide (CDC, 2001).

Utilizing an 84 question survey such as the one utilized by the CDC may not be a practical option for providers given the length of time it takes to complete such a tool. Columbia University has been researching the problems of depression and teen suicide for nearly a decade by utilizing a modified version of the CDC's YRBSS (Satcher, 2003). Their screening tool, called the "Teen Screen," is a written,

confidential questionnaire, comprised of only 10 “yes or no” questions that address such issues as: Do you drink alcohol, use drugs, ever considered suicide? Individuals scoring positively on the screening tool are referred for a more thorough psychiatric assessment in order that a diagnostic profile might be established. Their studies have demonstrated that “simple, confidential screening of teens is effective in detecting adolescents at risk for depression, suicide and other mental illnesses” (Satcher, 2003). As a result of such intensive research, the national initiative, Positive Action for Teen Health (PATH) was launched with the goal of offering voluntary screening for depression and suicide to every American teenager (Satcher, 2003). But most adolescents with depression will not be screened or diagnosed. The Columbia University studies demonstrated that 60%-80% of adolescents with depression will go undiagnosed and untreated. As a result, 1,700 teens commit suicide each year. Interestingly, 90% of parents surveyed were confident that they would be able to detect if their child was depressed or contemplating suicide, when in fact, most parents of suicide victims report being completely unaware of any signs (Satcher, 2003). When offered the opportunity for depression and suicide screening for their child, 74% of parents surveyed felt that screening was “very important”. Sourander and colleagues found that screening for suicide in a clinical setting is extremely important since adolescents reported suicidal features to their providers three times more often than what their parents had observed (2001).

Relevance to Nursing

The risk of a teenager dying from suicide is surpassed only by homicide and accidental death (Centers for Disease Control, 2001). Providers of healthcare have a

unique opportunity and an inherent responsibility to identify teens at risk for depression and suicide. By taking the time to utilize some of the core questions identified on the one page Teen Screen questionnaire, teens that might otherwise go undetected can have the opportunity to receive counseling and supportive services. Such a screening tool should be integrated into the regular, periodic provider visit. A quantitative study examining how often providers screen for adolescent depression and suicide would provide useful data concerning how well the risk factors for teen suicide are being assessed.

Theoretical Framework

This research study utilized the framework as defined by the Quality Assurance Model Using Research (QAMUR) (Watson, Buiechek & McCloskey, 1987, p.21). This model utilizes quality assurance (QA) as being “inherent and mandatory in the nursing process” (Watson, et al., 1987). By utilizing QA to identify problems in the practice setting, investigational studies can be formulated that will expand nursing’s scientific knowledge base. The QAMUR has two operational tracks: Research utilization and research conduction. Both tracks are dependant upon ongoing QA to assist in the identification of practice related problems. This model was originally designed to be implemented in a teaching hospital but is relevant to other nursing disciplines. It is based on the assumption that ongoing clinical activities should be monitored using key quality indicators. The “total QA structure” is formulated using a relevant literature review (Watson, et al, 1987). The entire research process is then overseen by at least a Masters prepared nurse who actively participates in all aspects of the research. Based on the outcomes of the research, the

researcher may incorporate the innovation into the practice or abandon the project altogether. If the innovation becomes integrated into the institution's clinical practice, then the innovation becomes part of "the standards of care" (Watson, et al, 1987).

Purpose of Study

The purpose of this descriptive comparative quantitative study was to determine if adolescents aged 12-17 were being screened on a routine basis (at least annually) by their primary care providers for risk behaviors that could signal depression and suicide potential.

Variables

The following variables in this study were identified:

Adolescents (operational): Males and females ages 12-17 of any ethnic background, with or without co-morbidity who are being primarily followed by a provider in an out-patient setting.

Adolescents (conceptual): Children progressing through puberty.

Provider (operational): Pediatricians, primary care physicians and nurse practitioners, both male and female of all age groups and ethnic backgrounds, who practice in select out-patient family practice settings.

Provider (conceptual): Healthcare professionals who deliver health care to patients.

Depression (operational): Those patients identified as having diagnostic criteria consistent with depression, as diagnosed (and/or followed) by their provider.

Depression (conceptual): Diagnostic criteria include the presence of at least four of the following every day for at least two weeks: 1) poor appetite or significant weight loss, or weight gain, 2) insomnia or hypersomnia, 3) psychomotor agitation or retardation, 4) loss of interest or pleasure in usual activities, 5) loss of energy or fatigue, 6) feelings of worthlessness or excessive/inappropriate guilt, 7) inability to think or concentrate, or 8) recurrent thoughts of death, suicidal ideation or attempted suicide (Venes, 2005).

Suicide (operational): Intentionally and voluntarily taking of one's own life (Venes, 2005).

Suicide (conceptual): See conceptual definition.

Risk behavior indicators (operational): Those adolescents ages 12-17 who indicated to their provider that they have thought of suicide, are planning a suicide, or have already attempted suicide. Additionally, those adolescents ages 12-17 who exhibit significant risk factors as identified on the Path Teen Screen (See Appendix A).

Risk behavior indicators (conceptual): Signs and symptoms exhibited by an individual and objectively assessed by a provider that would indicate a higher category of risk for a specified pathology than that of the general population.

Follow-up (operational): The recommendation for follow up care for those adolescents identified as being at risk for suicide. This might include counseling, medication, or referral for psychological/psychiatric evaluation and management.

Follow-up (conceptual): The individual act of returning to a provider's office for ongoing assessment and treatment.

Research Questions

The purpose of this descriptive, comparative study was to determine to what level adolescents aged 12-17 years were being screened on a routine basis by their primary providers for depression and suicide potential. Specific questions examined:

- 1) Do pediatricians, primary care physicians, and nurse practitioners routinely (at least annually) document assessments of adolescent risk behavior indicators that could signal depression and suicide potential, as outlined by the PATH Teen Screen Questionnaire (Satcher, 2003)?
- 2) How do individual providers compare to one another in regard to documentation of adolescent risk behavior indicators for adolescent depression and suicide?
- 3) How do pediatricians, primary care providers, and nurse practitioners compare to one another in regard to documentation of adolescent risk behavior indicators for adolescent depression and suicide?
- 4) How do select practice locations compare with one another in regard to documentation of adolescent risk behavior indicators for adolescent depression and suicide?

CHAPTER II

Review of the Literature

Because depression is clearly associated with suicide, the need to effectively identify those adolescents who are considered high risk is of particular concern to healthcare providers (Cappelli, et al., 1995). This review of the literature will discuss the following topics: 1) National incidence of adolescent suicide, 2) screening for depression and suicide in the primary care setting, and 3) utilizing an effective screening tool for adolescent depression and suicide.

The Incidence of Adolescent Suicide

Adolescent suicide has become a major public health problem in the United States (Substance Abuse and Mental Health Services Administration, 2003). More than 30,000 Americans will die from suicide this year (U.S. Public Health Service, 2001). Between the years of 1952 and 1995, suicide rates among adolescents and young adults nearly tripled. Many of those who attempt suicide have never sought any form of professional care. More teenagers and young adults die from suicide than from cancer, heart disease, acquired immune deficiency (AIDS), birth defects, stroke, pneumonia, influenza, and chronic lung disease *combined* (U.S. Public Health Service, 2001). In the year 2000, suicides were responsible for 29,350 deaths in the United States, for a death rate of 10.7 deaths per 100,000 (U.S. Department of Health and Human Resources, 2003). Unintentional injuries, homicide, and suicide combined accounted for 70% of all deaths in those aged 15-19 years (U.S. Department of Health and Human Resources, 2003). The National Institutes of Mental Health (NIMH) ranked suicide as the 11th leading cause of death in all age

groups during the year 2000 and the 3rd leading cause of death among 15-24 year olds (NIMH, 2003). The 2000 suicide rate for adolescents ages 15-19 was 8.2 deaths per 100,000. Suicide rates for adolescent males were five times greater than females.

The National Household Survey on Drug Abuse (NHSDA) estimated that almost three million youths were at risk for suicide during the year 2000 (Substance Abuse and Mental Health Services Administration, 2003). Of those who were at risk, 37% had actually tried to kill themselves within the past year. This survey found that substance abuse is associated with an increased risk of suicide among youths. Youths who had reported illicit drug use had a suicide risk almost three times that of youths who did not use illicit drugs. Of those youths identified as being at high risk for suicide, only 36% had received any mental health treatment or counseling. A 1995 study of randomly chosen adolescent health clinic patients ages 13-18 years showed that approximately 50% of all adolescents in their study who reported moderate to severe depression also reported “significant suicidal potential” (Cappelli, et al., 1995). Additionally, adolescents who suffered from certain chronic medical conditions were found to be at a greater risk for suicide. Studies conducted in France reported that patients with asthma, obesity, diabetes, anorexia nervosa and epilepsy afflicted over 50% of their study group, but made up for 98% of the study patients at risk for suicide (Alvin, 1993). These data suggest that an existing chronic medical condition can further increase an adolescent’s risk for suicide.

The American Medical Association (AMA) recommends at least one preventative visit for adolescents every one to three years (1997). In “Guidelines for

Adolescent Preventive Services (GAPS), the AMA outlines three goals for preventive care visits (1997):

- identify adolescents who have recently begun, or are considering, health risk-behaviors;
- identify adolescents whose health-risk behavior has escalated to a more serious level; and
- identify adolescents who show signs of early physical or emotional disorders.

The AMA has also outlined specific guidelines for comprehensive adolescent preventive services visits. Topics include: 1) Promoting adjustment to puberty and adolescence, 2) promoting safety and injury prevention, 3) promoting healthy psychosexual adjustment and preventing the negative health consequences of sexual behaviors, 4) preventing the use of tobacco products, 5) preventing the use of alcohol and other drugs, 6) preventing severe or recurrent depression and suicide, 7) preventing physical, sexual and emotional abuse, and 8) preventing infectious disease.

Risk factors for suicide in the adolescent population include depression, alcohol or other drug use disorder, physical or sexual abuse, and disruptive behavior (NIMH, 2003). Research has demonstrated that over 90% of the individuals who commit suicide have depression, or another diagnosable mental or substance abuse disorder (NIMH, 2003). These data strongly support the use of prevention programs designed to detect risk behaviors that could indicate adolescent depression and/or suicide potential.

Screening for Depression and Suicide in the Primary Care Setting

The primary care setting may be one of the best routes for detecting and preventing suicides in adolescents (American Academy of Child and Adolescent Psychiatry, 2001). It has been reported that over 50% of patients suffering from some form of mental disorder are seen only by their Primary Care Provider (Cappelli, et al., 1995). However, research has shown that medical residents who work with children and adolescents are not likely to screen for high risk behaviors due to low comfort levels and lack of time (Middleman, Binns & Durant, 1995). A reason for their lack of comfort level is undoubtedly concerned with the difficult challenge in trying to identify suicidal patients. This is due in part, to the relative rarity of suicide. Zametkin, Alter, and Tamar reported that the overall incidence of suicide in the general population is low (0.01%), even though suicidal ideation is common (27%) among the general teenage population (2001). They noted that while there is a high incidence of patients who are depressed, few ever commit suicide (0.01%). Some of the common criteria utilized in assessing suicide risk includes depression, loss of interest or pleasure in activities, weight gain or loss, insomnia or hypersomnia, loss of energy, feelings of worthlessness, hopelessness, lack of concentration, recurring thoughts of death, racing thoughts, and distractedness (Zametkin, et al., 2001). Unfortunately, even once identified as high risk for suicide, adolescents are frequently non-compliant with psychiatric treatment plans. As many as 40% of teenagers who are considered suicidal do not attend prescribed therapy, and are removed from treatment (Zametkin, et al., 2001). While there are no structured protocols for how to effectively address the problem of adolescent depression and

suicide, conscientious clinical follow-up and ongoing communication are essential. Pediatricians, primary care providers, nurse practitioners or others who lack the time or resources to evaluate an adolescent's mental health state should make use of concise questionnaires in order to screen for depression and suicide in this patient population (American Academy of Child and Adolescent Psychiatry, 2001).

Utilizing an Effective Screening Tool

Research has effectively demonstrated that suicide can be prevented through early identification and detection measures (Satcher, 2003). One such measure is the CDC's Youth Risk Behavior Surveillance System (YRBSS). This screening tool has been shown to have a reliability rating of "moderate" to "substantial" (Brener, et al., 2002). First conducted in 1990, the YRBSS monitors six categories of risk among adolescents. These include 1) violence (including suicide) and unintentional injuries, 2) tobacco use, 3) alcohol and other drug use, 4) sexual behaviors, 5) dietary behaviors, and 6) physical activity (CDC, 2001). Thatcher, Reininger, and Drane reported on adolescent suicide attempts, life satisfaction and health risk behaviors utilizing the CDC's YRBSS (2002). Their study attempted to identify specific risk behaviors that predicted adolescent suicide, as well as examined how risk behaviors varied between race and gender groups. Information was gathered from a cross-sectional population of public high schools in South Carolina in order to determine quality of life, life satisfaction, and suicide risk behaviors. During 1997, eighty-one schools were chosen and 4,565 respondents were surveyed. Overall, 333 (7%) reported attempting suicide in the past year (145 were black, and 188 were white). The data suggested that several variables were associated with adolescent

suicide attempts. These include feelings of intimidation, alcohol and cocaine use, self-perceptions of mental health, self-perceptions of body weight, dieting practices, bulimic episodes, and physical and sexual abuse. Programs focused on reducing such risk factors have been considered ineffective, possibly due to the lack of a multi-component design to consistently assess the range of risk factors. Using a simple, brief depression rating scale increases the likelihood of detection of depressed patients in a primary care setting (Rey, Grayson, Mojarra & Walter, 2002).

Such a research design has been adopted by Columbia University for the purpose of screening large numbers of high school students that might be at risk for suicide (Satcher, 2003). Utilizing a modified version of the CDC's YRBSS, the "Teen Screen", is a written, confidential questionnaire, comprised of only 10 "yes or no" questions. The Teen Screen Program was launched nationally in 1999 to reach both middle school and high school aged students, and was expanded to screen more broadly for mental illnesses in addition to risk factors for suicide (Satcher, 2003). This suicide prevention program is based on the findings of a psychological autopsy study that was conducted by Schaffer and colleagues in 1996. The study findings indicated that more than 90% of the teens that committed suicide had a psychiatric disorder at the time of their deaths. The majority of the boys who committed suicide suffered from depression, abused drugs or alcohol, or had made prior suicide attempts. The majority of girls who had committed suicide suffered from depression, or had made prior suicide attempts. The original Teen Screen studies were conducted with 2000 high school students. Of those students studied, only 26% of those with major depression, 26% of those contemplating suicide, and 50% of those who had

made a prior suicide attempt were receiving any form of professional help (Satcher, 2003). These researchers concluded that teens at risk for suicide often exhibit predictable behaviors, and suffer from a very specific range of mental illnesses. By screening for these behaviors in the primary care setting, providers can have a significant impact on identifying those adolescents who are at risk for depression and suicide (Cappelli, et al., 1995).

The American Medical Association (AMA) recommends fundamental changes in the manner in which adolescent health care is provided (1997). Their guidelines call for adolescent preventive visits every one to three years. These visits should incorporate primary and secondary levels of prevention of many of the major health threats facing today's youth (including depression and suicide). Specifically, provider assessments should be conducted in a manner that allow for the identification of adolescents who have recently begun, are considering, or have escalated health risk-behaviors. The preventive visit guidelines also include the identification of adolescents who show signs of early physical or emotional disorders (AMA, 1997). Specific guidelines for comprehensive adolescent preventive services visits included: 1) Promoting adjustment to puberty and adolescence, 2) promoting safety and injury prevention, 3) promoting healthy psychosexual adjustment and preventing the negative health consequences of sexual behaviors, 4) preventing the use of tobacco products, 5) preventing the use of alcohol and other drugs, 6) preventing severe or recurrent depression and suicide, 7) preventing physical, sexual and emotional abuse, and 8) preventing infectious disease.

Therefore, the purpose of this study was to assess how well providers document risk behaviors that could be indicative of depression and/or suicide potential in their adolescent patient population.

Chapter III

Methodology

Design

This descriptive comparative quantitative study examined and described the practices of primary health care providers (primary care physicians, pediatricians and nurse practitioners) regarding depression and suicide screening in their adolescent patient population. The use of a descriptive design was appropriate for this study since it provided the framework for a situational descriptive study approach that does not utilize any form of treatment or control group (Burns & Grove, 2001).

Setting

This study was conducted at each of the four satellite offices of an out-patient family health clinic located in Kentucky. This practice setting utilizes primary care physicians, pediatricians and nurse practitioners to provide primary care services for their adolescent patient population.

Sample

Population. The target population of interest consists of all adolescents aged 12-17 years who are followed by a primary care provider. A convenience sample was drawn from the population. A randomized retrospective record review was conducted of 102 charts (6 charts per provider). This sample was taken from the accessible population of adolescents aged 12-17 who were followed by a primary care provider for routine or non-acute visits during the previous year.

Inclusion/exclusion criteria. This retrospective chart audit included those patients, male or female, ages 12-17 of any ethnic background, with or without co-

morbidity, who had been followed by a primary care provider in an out-patient setting during the past 12 months. Patients below the age of 12, or above the age of 17 were excluded. Patients who had been seen beyond the 12 month evaluation period were also excluded.

Sample approach/recruitment. A convenience sample consisting of medical records of the accessible population was used. No active patient recruitment was required for this study.

Sample size. The sample size chosen (n=102) provided sufficient amounts of information and allowed for adequate comparisons between provider types (primary care physician, pediatrician and nurse practitioner).

Protection of subjects. This study involved the collection of anonymous chart data and was in no way harmful to the patients involved. Permission to conduct this study was obtained from Northern Kentucky University's Institutional Review Board (Appendix B) and the study site's Medical Director (Appendix C). Prior to the actual collection of data, an Investigative Committee was identified and appropriate departmental permission obtained (Appendix D). All data remained confidential and did not include the names of the physicians, nurse practitioners, patients or the study sites involved. The primary researcher performed all chart audits and personally collected all the necessary data. The results of this study were shared with the study site. Non-reportable information pertaining to specific patients of individual providers was shared with providers. This information allowed for appropriate review and evaluation of a provider's own performance. Additionally, the sharing of research results provided critical identification information of that provider's

patient(s) who might be considered at risk for depression and/or suicide so that these patients could be managed or referred for further testing or treatment, as appropriate.

Patient confidentiality was in no way breeched and no persons outside of the researcher and the providers were made privy to any identifying information.

Data Collection Procedures

Demographics. Prior to the commencement of this study, consent to conduct this study was obtained from the director of the medical facility (Appendix C). This allowed the investigator to have access to all patient charts at the four practice sites from which data were collected.

Instruments. The Data Collection Form utilized in this study was based on information taken directly from the “Teen Screen Youth Survey”, which was modified for simplicity by Columbia University utilizing the CDC’s Youth Risk Behavior Surveillance System (YRBSS). The YRBSS has been shown to have a reliability rating of “moderate” to substantial” as a screening tool for suicide (Brenner, et al., 2002). While the YRBSS screening tool has been shown to be reliable, the length of time it takes to complete the 80 questions on the tool can be considered prohibitive. Columbia University modified the YRBSS to a simpler, more user friendly format comprised of only 10 “yes or no” questions. The “Teen Screen” program was launched nationally in 1999 to reach both middle school and high school aged students, and was expanded to screen more broadly for mental illnesses in addition to risk factors for suicide (Satcher, 2003). This suicide prevention program is based on the findings of a psychological autopsy study conducted by Schafer and colleagues in 1996. The study findings indicated that more than 90% of

the teens that committed suicide had a psychiatric disorder at the time of their deaths. The original Teen Screen studies were conducted with 2000 high school students. Of those students studied, only 26% of those with major depression, 26% of those contemplating suicide, and 50% of those who had made a prior suicide attempt were receiving any form of professional help (Satcher, 2003). These researchers concluded that teens at risk for suicide often exhibit predictable behaviors, and suffered from a very specific range of mental illnesses. By screening for these behaviors in the primary care setting, providers can have a significant impact on the identification of those adolescents who are at risk for depression and suicide (Cappelli, et al., 1995).

The AMA has also outlined specific guidelines for comprehensive adolescent preventive services visits. Topics include: 1) Promoting adjustment to puberty and adolescence, 2) promoting safety and injury prevention, 3) promoting healthy psychosexual adjustment and preventing the negative health consequences of sexual behaviors, 4) preventing the use of tobacco products, 5) preventing the use of alcohol and other drugs, 6) preventing severe or recurrent depression and suicide, 7) preventing physical, sexual and emotional abuse, and 8) preventing infectious disease. Each of these AMA guidelines was addressed by the “Teen Screen” questionnaire. This data collection form was used to gather information from patient charts regarding the presence of adolescent risk behavior indicators, as documented by their providers (Appendix E). The charts were audited for evidence of answers to the following questions:

1. Does the patient wear a seat belt all the time?
2. Has the patient been immunized against Hepatitis B?

3. Does the patient smoke or chew tobacco?
4. Does the patient drink alcohol (beer, wine or hard alcohol)?
5. Has the patient tried (or is the patient using/abusing) drugs?
6. Is the patient sexually active?
7. Has the patient ever had a sexually transmitted disease (STD)?
8. Has the patient ever thought of, planned for, or actually attempted suicide?
9. Does the patient have a history of physical or sexual abuse?
10. Does the patient have a history of domestic problems?

Collection of data. Review of patient charts took place at four practice sites of a community health center located in Kentucky. The chart review consisted of a random selection of patient charts from 17 providers. Providers consisted of five primary care physicians, six pediatricians, and six nurse practitioners.

Impact on setting. A clerical employee of the community health center provided the researcher with a list of patients who met the inclusion criteria for this study. Six charts were randomly selected representing each of the 17 providers. These charts were then collected by the researcher and taken to a private work area. The researcher then performed a chart review, addressing each of the criteria listed on the data collection form. In order to minimize disruption to the medical facility, all screening was performed directly by the researcher in a work area that was separate from employee work stations and patient care areas.

Data management and storage. All data retrieved by the researcher remained confidential. Data collection forms were stored in a secure location and were not

accessible to any other persons. Providers were given chart numbers pertaining to their patients, in order to allow for further chart analysis or necessary interventions, as deemed appropriate by the provider.

Timeline for completion. Data collection commenced upon approval from NKU's IRB Department, and was completed within two years from the date of approval.

Threats to Research Rigor

Research rigor (reliability and validity) was maintained through the use of consistent and confidential data collection techniques, and was limited to the information as outlined on the data collection form. No provider or other persons employed by the community health center participated in this review in order to maximize the integrity of all data collected.

Data Analysis

In order to assess for differences between specialties, chi square analysis was used to compare documentation of risk behavior indicators for depression and suicide by primary care physicians, pediatricians and nurse practitioners. Chi square analysis was also used for comparisons between practice locations. This study was not intended to describe causality. All nominal data collected were reported using percentages, graphs and frequency tables.

Chapter IV

Presentation, Analysis & Interpretation

A convenience sample was utilized in this comparative study to describe how well providers screen for depression and suicide among adolescents by reviewing patient charts for the presence or absence of documentation of risk behavior indicators. This was achieved through a retrospective chart review of 102 patient charts representing the patients of 17 primary health care providers. Hundreds of charts were reviewed in order to selectively identify charts containing information consistent with the study's design and purpose. Following the identification of study appropriate patient charts, a total of six charts per provider were reviewed at each of the site's four satellite offices.

Demographic Data

Data were collected from charts representing 12-17 year old patients receiving non-acute child/adolescent care and/or health maintenance care. Non-acute services for this age group fell into three distinct categories: Well visits, annual gynecological visits and routine follow up visits for children diagnosed with Attention Deficit Hyperactivity Disorder (ADHD). Well visits (sports or annual physicals) accounted for 88.2% (N=91) of all visit types, followed by 5.8% (N=6) gynecological visits (routine gynecological visits/pap smears), and 4.9% (N=5) ADHD routine follow up visits.

The chart review consisted of a random selection of patient charts from 17 providers. Providers consisted of five primary care physicians, six pediatricians, and six nurse practitioners.

Chart Data

Representative charts for each of the 17 providers were reviewed at the four study locations. Data were collected and organized through the use of randomly assigned numbers that anonymously correlated the chart review findings with the specific provider caring for a particular patient. The researcher only considered documentation of findings from visits that had occurred *within one year* of the chart review. If documentation for any of the risk behavior indicators was not found on the non-acute visit record being evaluated, then all other documentation that had occurred during the previous year was also taken into consideration. The researcher made the assumption that the provider had also potentially reviewed the patient's previous recent visit notes, and could have incorporated those historic findings with his/her own assessment findings. Patients at this practice site frequently see more than one provider. Therefore, other documentation that was considered from the previous year was not necessarily the documentation of the provider being considered.

Charts were reviewed for provider documentation that would identify that the provider was screening for any of the 10 adolescent risk behaviors being assessed in this study. Anecdotal findings indicated that many providers utilized an objective adolescent examination flow sheet for many of these non-acute visits (Appendix F). Once this trend was noted, the investigator began to collect additional data that showed a definite correlation between the use of this documentation tool, and the amount of assessment data obtained pertaining to the 10 parameters being investigated in this study. Providers utilizing an assessment tool were far more likely to document findings relating to the subject matter covered by this study. Anecdotal

information also included the finding that providers did not routinely utilize a rating scale for measuring depression in the adolescent population.

All charts were reviewed for evidence of the following documented findings:

1. Seat belt usage
2. Hepatitis B vaccination status
3. Tobacco use
4. Alcohol use
5. Drug use
6. Presence or history of sexual activity
7. History of sexually transmitted disease
8. Suicide ideation or attempt
9. History of physical or sexual abuse
10. History of domestic problems

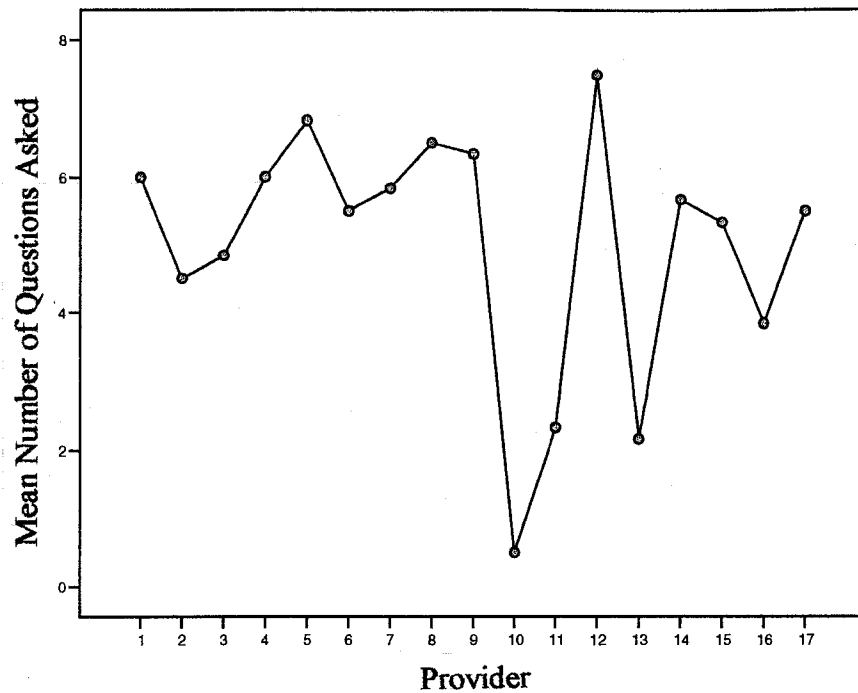
Measurements were obtained that showed how many of the risk behavior indicators being evaluated by this study were documented by each specific provider. Table 1 shows the average number of adolescent risk behavior indicators addressed and documented by all 17 providers within the past year was 5 out of 10 (50% of the risk indicators utilized for the purposes of this study).

Table 1
Documentation of Risk Behavior Indicators by Provider

Provider #	N	Mean
1	6	6.00
2	6	4.50
3	6	4.83
4	6	6.00
5	6	6.83
6	6	5.50
7	6	5.83
8	6	6.50
9	6	6.33
10	6	.50
11	6	2.33
12	6	7.50
13	6	2.17
14	6	5.67
15	6	5.33
16	6	3.83
17	6	5.50
Total	102	5.01

Provider documentation of risk behavior indicators ranged between 0.50 and 7.5 indicators documented per adolescent non-acute visit, with a mean of 5 risk behavior indicators documented for all providers and all provider types. Figure 1 graphs the differences among all 17 providers based on the mean number of risk behavior indicators documented during each adolescent non-acute visit, per provider.

Figure 1: Differences Among Individual Providers



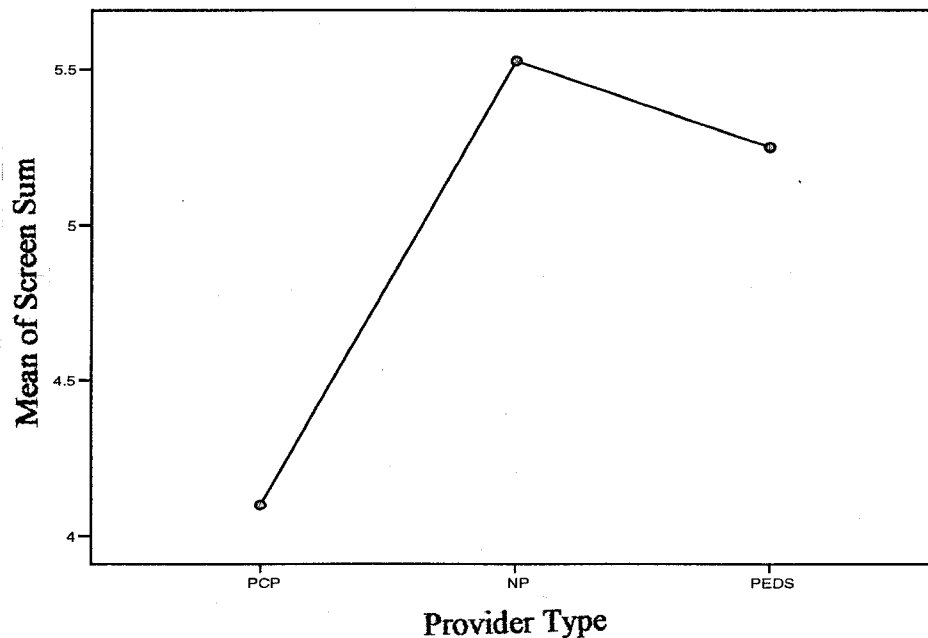
Data were also analyzed by type of provider: Primary care physicians (PCP), pediatricians (PEDS) and nurse practitioners (NP). This allowed for comparisons to be made among specialties. ANOVA testing differences for each provider type revealed a significant difference at the 0.10 significance level between provider types regarding the number of risk behavior indicators assessed per patient ($F=2.80$, $p=0.066$). These values are as follows:

Table 2: Differences by Provider Type

Type of Provider	Number of Patients (N)	Mean Number of Risk Indicators Assessed/Pt
PCP	30	4.10
NP	36	5.53
PEDS	36	5.25
TOTAL	102	5.01

Primary care physicians and nurse practitioners differed significantly (0.10 level of significance) in the number of risk behavior indicators documented per adolescent non-acute visit (4.10 and 5.53, respectively) ($F=2.80$, $p=0.026$). A significant difference was also found (at the 0.10 level of significance) in the number of risk behavior indicators documented between primary care physicians and pediatricians (4.10 and 5.25, respectively) ($F=2.80$, $p=0.072$). No significant difference was found between the mean number of risk behaviors documented by nurse practitioners and pediatricians. The following graph illustrates these comparisons among provider types.

Figure 2: Differences Among Provider Types



Data were grouped by provider type and question type. Nurse practitioners scored significantly higher on the risk indicator assessment for seatbelt usage

compared to primary care physicians and pediatricians (55.6%, 16.7% and 19.4%, respectively) ($X^2=15.171$, $p= 0.001$). Nurse practitioners also scored higher on the risk indicator assessment for sexual activity compared to primary care physicians and pediatricians (86.1%, 46.7% and 58.3%, respectively)($X^2=12.138$, $p=0.002$). Pediatricians scored higher on the risk indicator assessment for history of sexually transmitted disease, compared to primary care physicians and nurse practitioners (36.1%, 23.3% and 8.3%, respectively) ($X^2=7.968$, $p=0.019$). It is important to note that there was no statistical difference between provider type and assessment frequencies for any other risk indicator type, including the risk indicator for suicide ideation or attempt (Table 3).

Table 3: Comparison of Provider Type and Frequency of Risk Behavior Indicator Assessment

Question Number	Risk Behavior Indicator Assessed	PCP	NP	PEDS	TOTAL FOR ALL PROVIDER TYPES
*1	Seat belt use?	16.7%	55.6%	19.4%	31.4%
2	Hepatitis B immunization?	83.3%	83.3%	94.4%	87.3%
3	Tobacco use?	53.3%	77.8%	75.0%	69.6%
4	Alcohol use?	50.0%	75.0%	66.7%	64.7%
5	Drug use?	46.7%	69.4%	63.9%	60.8%
*6	Sexually active?	46.7%	86.1%	58.3%	64.7%
*7	History of STD?	23.3%	8.3%	36.1%	22.5%
8	Suicide ideation or attempt?	23.3%	36.1%	50.0%	37.3%
9	History of physical or sexual abuse?	33.3%	25.0%	16.7%	24.5%
10	History of domestic problems	33.3%	36.1%	44.4%	36.2%

* Indicates a significant difference (0.10 significance level) between provider types

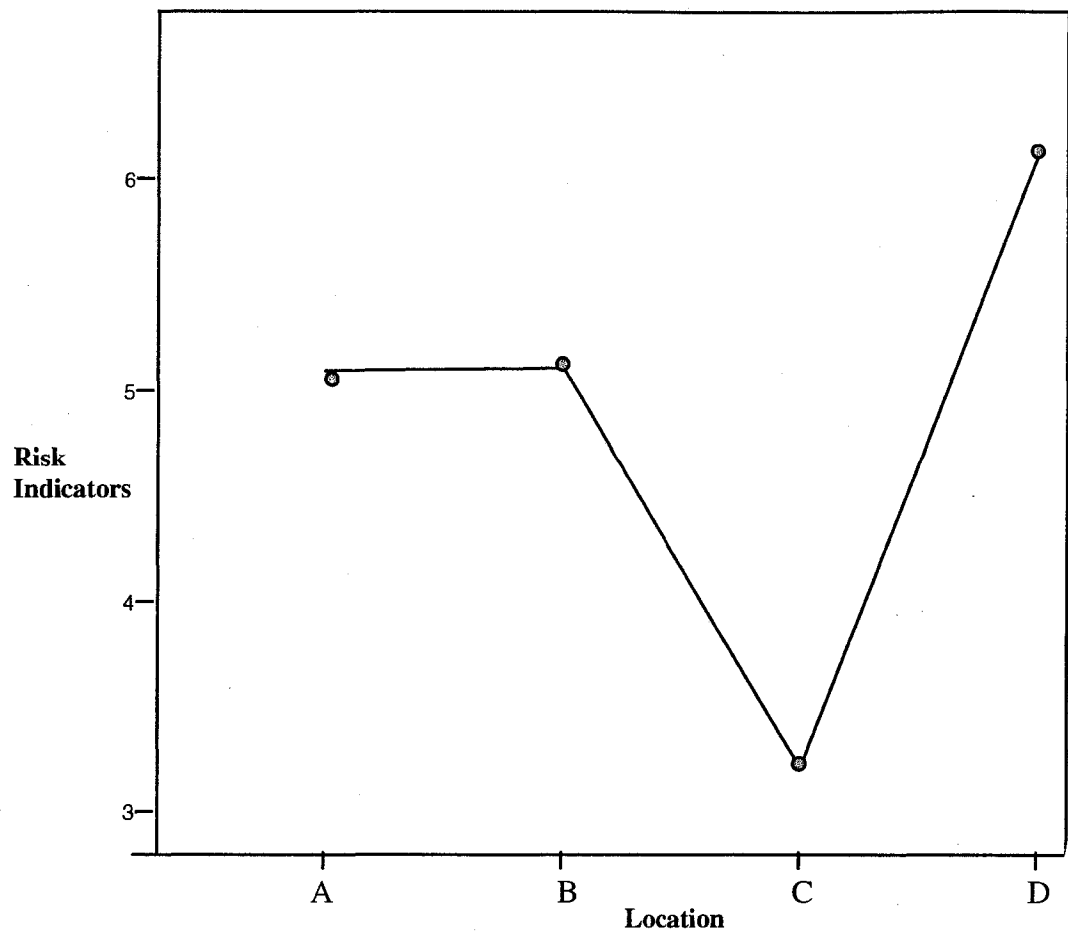
Finally, data were sorted by location in order to allow for comparisons among office locations. One way ANOVA testing indicated a significant difference in the mean number of risk behavior indicators assessed based on practice location ($F = 6.162$, $p = 0.001$). These values are as follows:

Table 4: Differences by Location

Location	Number of Patients (N)	Mean Number of Risk Indicators Assessed/Pt
A	18	5.11
B	32	5.13
C	22	3.23
D	30	6.13
TOTAL	102	5.01

Multiple comparisons among all practice sites indicated that providers at practice location C differed significantly in the number of risk behavior indicators assessed per adolescent non-acute visit (3.23) compared to practice sites A, B and D (5.11, 5.13, and 6.13, respectively). No significant difference was found between the mean number of risk behaviors documented among practice sites A, B and D. The following graph illustrates these comparisons among practice locations.

Figure 3: Differences by Practice Location



Results of Research Questions One and Two

Do pediatricians, primary care physicians and nurse practitioners routinely (at least annually) document assessments of adolescent risk behavior indicators that could signal depression and suicide potential (as outlined by the PATH Teen Screen Questionnaire)?

How do pediatrician, primary care physicians and nurse practitioners compare with one another in regard to documentation of adolescent risk behavior indicators for adolescent depression and suicide?

1. A total of 102 charts of 17 providers were retrospectively reviewed representing adolescent patients between the ages of 12-17. Review of the data indicates that all provider types provided some level of behavioral risk indicator assessment.
2. There was wide variation among individual providers regarding the extent of risk behavior assessments during non-acute adolescent visits. Provider assessments of the identified behavioral risk indicators ranged between 0.5 and 7.5 indicators, with a mean score of 5.01 risk behavior indicators (or 50%) documented.

Results of Research Question Three

How do Pediatricians, Primary Care Providers and Nurse Practitioners compare with one another in regard to documentation of adolescent risk behavior indicators for adolescent depression and suicide?

1. Nurse practitioners provided documentation for more of the risk behavior indicators than pediatricians or primary care physicians during non-acute adolescent visits (5.53, 5.25 and 4.10, respectively).
2. Nurse practitioners assessed indicators pertaining to seat belt usage significantly more often than primary care or pediatric physicians (86.1%, 46.7% and 58.3%, respectively) ($X^2=15.171$, $p=0.001$).
3. Nurse practitioners also assessed indicators pertaining to sexual activity significantly more often than primary care or pediatric physicians (86.1%, 46.7% and 58.3%, respectively) ($X^2=12.138$, $p=0.002$).
4. Pediatricians assessed risk indicators related to STD history significantly more often than primary care physicians or nurse practitioners (36.1%, 23.3% and 8.3%, respectively) ($X^2=7.968$, $p=0.019$).

Results of Research Question Four

How do practice locations compare with one another in regard to documentation of adolescent risk behavior indicators for adolescent depression and suicide?

1. Significant differences existed among practice sites. The number of behavioral risk indicators assessed ranged from 3.23 to 6.13, with a mean score of 5.01 indicators (or 50%) documented ($F=6.162$, $p=0.001$).
2. These results indicate that an average of one-half of the 10 behavioral risk indicators were assessed at each practice location.

Chapter V

Discussion of Findings

As the third leading cause of death among teenagers, the risk of suicide is of major concern to providers of health care (NIMH, 2003). Adolescents who abuse drugs and alcohol are 66% more likely to consider suicide than non-substance abusers. Providers routinely screen for medical conditions in children and adolescents. However, more teenagers and young adults die from suicide than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia, influenza and chronic lung disease *combined* (US Public Health Service, 2001). Unfortunately, there has been no consistent, organized system for screening of depression, or other mental disorders in adolescents. Since 50% of patients suffering from a mental disorder are followed only by their primary care provider, screening measures within the outpatient primary care setting are essential (Cappelli, 1995). Adolescents report suicidal features to their health care providers three times more often than what their parents observe (2001). The AMA recommends fundamental changes in the manner in which adolescent health care is provided (1997). Their guidelines call for adolescent preventive visits every one to three years. Specifically, provider assessments should be conducted in a manner that allow for the identification of adolescents who have recently begun, are considering, or have escalated health risk-behaviors. The preventive visit guidelines also include the identification of adolescents who show signs of early physical or emotional disorders (1997). These data strongly support the inclusion of an organized method of screening for risk behaviors among adolescents that could be indicative for suicide potential.

Research has indicated that suicide can be prevented with early screening and treatment (SAMHSA, 2002). Providers encounter a unique opportunity to address the problem of adolescent suicide during routine, non-acute visits. In this study, these visits typically occurred as annual physicals (88.2%). The results of this study indicated that providers of adolescent primary care did not consistently follow the AMA guidelines for adolescent preventive care. Approximately one-half of these risk behavior indicators were assessed in some form by each of the provider types studied and at each of the practice locations. However, wide variations existed between individual providers (0.5 to 7.5), type of provider (4.1 to 5.5.3), and practice location (3.23 to 6.13). According to the AMA guidelines, provider assessments should be conducted in a manner that allows for the identification of adolescents who have recently begun, are considering, or have escalated health risk-behaviors. The preventive visit guidelines also include the identification of adolescents who show signs of early physical or emotional disorders

Tools have been developed that can assist health care providers in evaluating and/or screening for depression and suicide potential. The “Teen Screen” utilized in this study represents just one of many resources that can effectively identify adolescents who exhibit risk behaviors for depression and suicide. Incidental findings in this study included a higher number of documented behavioral risk indicators among providers who utilized an adolescent examination flow sheet. This customized flow sheet provided specific assessment prompts in every single behavioral risk category covered in this study. Assessment areas identified on the adolescent flow sheet included categories for documentation of risk behaviors such as

suicide ideation, sexual activity or drug/alcohol use. Providers who followed the prompts and addressed the assessment criteria provided were observed to have more documentation of behavioral risk indicators. This documentation trend was noted as the study progressed so data were not consistently collected for uniform comparisons.

The finding that nurse practitioners document risk behavior indicators (particularly seat belt usage and sexual activity) more often than pediatricians or primary care physicians may be due to an increased utilization of the adolescent flow sheet previously described. However, data concerning the use of a specific risk behavior assessment tool was not tracked in this particular study, but could serve as an indicator for future research.

Differences in risk behavior documentation among practice sites could be due to higher concentrations of one provider type over another at the sites examined in this study. For example, the site with the lowest percentage of risk behavior documentation occurred in a rural area that exclusively utilized nurse practitioners and primary care physicians as their adolescent health care providers. The lack of pediatricians at this site could have influenced the type and frequency of adolescent risk behavior assessments being performed at this site.

Strengths and Limitations

Strengths of this study included a comprehensive retrospective chart review that allowed for identification of behavioral risk indicator documentation. Additionally, an unforeseen strength of the study was the discovery that the outpatient facility already possessed an adolescent documentation flow sheet that included all of the behavioral risk indicators being assessed for by this researcher

(although the flow sheet was not used consistently by all provider types, and many criteria on the flow sheet were frequently not addressed).

A significant limitation encountered in this study involved the variety of documents that the researcher had to consider when reviewing for the presence or absence of risk behavior indicator documentation. Only documents which offered findings from visits that had occurred *within one year* of the chart review were considered. However, if documentation for any of the risk behavior indicators was not found on the non-acute visit record being evaluated, then all other documentation that had occurred during the previous year was also taken into consideration. The researcher made the *assumption* that the provider had also potentially reviewed the patient's previous recent visit notes, and could have incorporated those historic findings with his/her own assessment findings. Since patients at this practice site frequently see more than one provider, prior documentation that was considered from the previous year was not necessarily the documentation of the provider being considered. Had the researcher *not* made this assumption, and had only considered the documentation of the past year from the provider being considered, then the scores reflecting documentation of risk behavior indicators would have been *significantly lower* than the scores reported.

Another limitation of this study involved the lack of consistent data that would allow for comparisons of behavioral risk documentation frequencies among those providers who utilized an adolescent flow sheet as a documentation tool versus those who did not. Since this finding was revealed after the study was underway, data that would allow for comparisons had not been retrieved from all charts reviewed and

could not be included in this analysis. Additionally, the NIMH recommends the use of additional screening tools, such as depression rating scales for individuals who are suspected as being at risk for depression or suicide (NIMH, 2003). Anecdotal findings indicated that depression rating scales were not routinely utilized by providers in this study.

Finally, a limitation existed involving the difficulty in discerning whether provider documentation legitimately indicated that a particular risk behavior had been addressed. Providers who documented a finding pertaining to a risk assessment criterion were often vague and non-specific. For example, under the “sexual activity/STD” section on the adolescent flow sheet, many providers gave the following documentation: Dating, not dating, beginning to date, interested in dating, or denies sexual activity. This information provides little insight regarding the patient’s actual sexual history. Whether an adolescent is dating, not dating or is not currently sexually active is not indicative of their sexual history and/or overall sexual practices.

Implications for Research, Theory and Practice

Research

This study poses several indications for additional research. A replication study could include a comparative analysis between providers who utilize an adolescent flow sheet tool when completing non-acute assessments versus those providers who do not utilize a tool. Other types of providers, such as physician assistants, could also be included in such a review. Additionally, an interesting component to incorporate into this study would involve a comprehensive chart review

to describe the screening and follow up patterns of those patients who have been identified as having a depressive or other mental health condition. Replication of this study could be considered utilizing a larger sample size. Future research could also include comparisons of the out-patient family practice setting to private practice and/or pediatric practice.

Theory

This research study utilized the framework as defined by the Quality Assurance Model Using Research (QAMUR) (Watson, Buiechek & McCloskey, 1987). This model proved to be an appropriate framework from which to identify provider assessment and documentation practices of risk behavior indicators in adolescents. The utilization of quality assurance measures allows providers to identify and respond to potential and actual problems within the practice setting. The information provided by these investigational studies can also be instrumental in expanding the scientific knowledge base of the nursing profession.

Practice

There was wide variation among individual providers, provider types and practice locations concerning the number of adolescent risk behavior indicators that were documented. Some providers utilized an adolescent flow sheet when documenting their assessment findings, but many did not. Anecdotal findings revealed that providers who utilized an objective adolescent documentation tool provided significantly more documentation of risk behavior indicators than those providers who did not utilize a tool. Unfortunately, this trend was revealed after the study was underway. Therefore, objective data that would allow for comparisons

were not retrieved from all charts reviewed and could not be included in this analysis. The AMA has published guidelines which call for adolescent preventive visits every one to three years (1997). These visits should incorporate primary and secondary levels of prevention of many of the major health threats facing today's youth (including depression and suicide). Specifically, provider assessments should be conducted in a manner that allows for the identification of adolescents who have recently begun, are considering, or have escalated health risk-behaviors. The preventive visit guidelines also include the identification of adolescents who show signs of early physical or emotional disorders (AMA, 1997). The NIMH recommends depression rating scales for individuals who are suspected of being at risk for depression or suicide (NIMH, 2003). Anecdotal information included the finding that depression rating scales were not routinely utilized by the providers in this study. These significant finding would suggest that primary health care providers could improve their depression and suicide screening rates by establishing specific guidelines for all providers. These guidelines would include the incorporation of the assessment criteria outlined on the adolescent flow sheet already in existence at this practice into *all* non-acute adolescent visits, as well as the utilization of depression rating scales for all adolescents who are believed to be at risk for depression and/or suicide.

The practices sites included in this research study utilized paper charts exclusively. Electronic medical records (EMR) have been found to be superior to paper medical records in capturing data that could be instrumental in the delivery of preventative health services (Bentz, Davis & Bayley, 2002). Electronic medical

records also provide a uniform and systematic framework for provider documentation of preventive health services that can be consistently tracked, analyzed and evaluated for improved continuous quality improvement (CQI) measures (Bentz, et al, 2002).

Summary and Conclusions

As the third leading cause of death among teenagers, the risk of suicide is of major concern to providers of health care (NIMH, 2003). Adolescents who abuse drugs and alcohol are 66% more likely to consider suicide than non-substance abusers. Providers routinely screen for medical conditions in children and adolescents. However, more teenagers and young adults die from suicide than from cancer, heart disease, AIDS, birth defects, stroke, pneumonia, influenza and chronic lung disease *combined* (US Public Health Service, 2001). Unfortunately, there has been no consistent, organized system for screening of depression, or other mental disorders in adolescents. Since 50% of patients suffering from a mental disorder are followed only by their primary care provider, screening measures within the out-patient primary care setting are essential (Cappelli, 1995). The primary care setting may be one of the best routes for detecting and preventing suicides in adolescents (American Academy of Child and Adolescent Psychiatry, 2001).

The results of this study indicated that providers did assess for some of the risk behavior indicators identified by the Teen Screen. However, significant variation existed among individual providers; type of providers and practice locations. Anecdotal findings indicated that many providers did not utilize the facility-designed adolescent documentation tool during non-acute visits. Incorporation of this tool by all providers of routine adolescent care could have dramatically influenced the

outcome of this study. Additionally, the NIMH recommends the use of additional screening tools, such as depression rating scales for individuals who are suspected of being at risk for depression or suicide (NIMH, 2003). Anecdotal findings also indicated that depression rating scales were not routinely utilized by providers in this study.

This research has helped to validate the need for establishing and utilizing early recognition protocols for adolescents who are at risk for depression and suicide. It is essential that providers of primary care incorporate standards of care that allow for the identification and treatment of adolescents who are at risk for depression and suicide. By identifying risk behaviors early, providers have a unique opportunity to therapeutically intervene and have impact on the incidence of suicide that annually claims the lives of over 1,700 adolescents in the United States.

Appendix A

Teen Screen - 10 questions

Please Read Me!

We want to help you be healthy. Please answer these questions. We ask all teenagers these questions. Your answers are private and confidential. Your doctor will explain what this means. If you are worried about who will see your answers, please talk to us.

Ten Question Teen Screen

Name: _____

Clinic Name _____

Birthdate: _____

Adolescent Health Screen

- | | Yes | No |
|---|--------------------------|--------------------------|
| 1. Do you wear a seat belt all the time? | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Have you been immunized for Hepatitis B? | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Do you smoke or chew tobacco? | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Do you drink alcohol (beer, wine, or hard alcohol)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Have you tried drugs (marijuana, speed, cocaine/crack, or acid)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Have you had sex (intercourse, "done it")? | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. Have you had an infection from sex (STD or VD)? | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. Have you ever thought of suicide? | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. Has anyone ever hurt you physically or sexually? | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. Are you having problems getting along with your family? | <input type="checkbox"/> | <input type="checkbox"/> |

Signature _____

For Physician Use Only

() Continued on Reverse Side

List all concerns identified and/or dealt with

Date	_____

**Do Not Copy
From Chart**

Appendix B

Northern Kentucky University
Human Investigations and Studies Committee
Institutional Review Board (IRB)

Information and
guidelines are
available in your
department chair's

office

DOCUMENTATION OF REVIEW AND APPROVAL
of

Research Project Utilizing Human Subjects

Title of Project: How Well Do Providers Screen For Depression and Suicide in Adolescents?

Funding Source: None. No remuneration is given to the researcher, providers or patients involved in this study.

Appl. Deadline _____

Project Type: Research ☒ Funded project# _____ New ☒ Continuation _____
Teaching _____ Course # _____ New _____ Repeat _____

Project Duration - Start Date 9/1/03 End Date 12/30/03

Principal Investigator: Judi Frerick, RN, BSN Department: Nursing

Campus Address: Albright Health Center, 303 Phone(O): 572-5248 (H) (859) 344-5296

Rank: Faculty _____ Staff _____ Student: ☒ Faculty Advisor: Denise Robinson, RN, PhD

Project Director: Denise Robinson, PhD. Dept: Nursing

Campus Address: Albright Health Center, 303 Phone(O): 572-5248

IF THIS IS A NON-COMPETING CONTINUATION APPLICATION OR EXACTLY THE SAME AS A PROTOCOL SUBMITTED AND APPROVED WITHIN THE PAST YEAR, AND THERE ARE NO CHANGES IN SUBJECT USE PROCEDURES, THEN SIMPLY FILL OUT THIS FORM AND ATTACH A COPY OF ALL MATERIALS PREVIOUSLY APPROVED.

As this signature below testifies the principal investigator(s) is pledged to conform to the following:

As one engaged in investigation utilizing human subjects, I acknowledge the rights and welfare of the human subject/patient involved.

I acknowledge my responsibility as an investigator to secure the informed consent of the subject by explaining the procedures, in so far as possible, and by describing the risks as weighed against the potential benefits of the investigation.

I agree to conform to the ethical principles regarding all research involving humans as subjects as set forth in the report of the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research entitled, "Ethical Principles and Guidelines for the Protection of Human Subjects of Research," also known as the Belmont Report.

If there is reason for me to deviate from the above, I will seek prior approval in writing from the NKU Human Investigations and Studies Committee.

PRINCIPAL INVESTIGATOR (S):

Judi A. Frerick, RN, BSN
(typed name)

(signature) (date)

If Student, Faculty Advisor:

Denise Robinson, RN, PhD
(typed name)

(signature) (date)

*CAMPUS LEVEL REVIEW:

This protocol for the use of human subject(s) has been reviewed and approved by the Northern Kentucky University Human Investigations and Studies Committee.

Exempt Review ☒ Expedited Review _____ Full Review _____ Not Approved

NKU Committee Date 11-7-03

Albright Health Center 303 | tel 859.572.5248, 5476 | fax 859.572.6098 | www.nku.edu/~nursing

Dear Medical Director,

As I am sure you are aware, suicide has become the third leading cause of mortality among adolescents. The CDC's Youth Risk Behavior Surveillance System (YRBSS) has created guidelines for screening for depression and suicide in teenagers, and includes recommendations that primary providers of health care perform these screenings on a routine basis. Although significant amounts of information are available concerning the need for depression and suicide screening in adolescents, little is known concerning the actual utilization of screening methods by Primary Care Providers, Pediatricians, and Nurse Practitioners. As a graduate nursing student from Northern Kentucky University, I am writing to ask your permission in allowing me to perform this research project at

Participation in this study will be exclusively limited to a retrospective chart review of patients being followed by nine of your current providers (three Primary Care Physicians, three Pediatricians, and three Nurse Practitioners). There will be no physical, psychological, economic or social risks to patients or providers. A convenience sample of male and female patients between the ages of 12 and 17 who were seen within the previous year will be used. The target sample will be a randomized selection of 20 charts per provider. There will be no provisions for remuneration for the patients or the providers.

All data will be recorded as aggregate data and individual patient names will not be used. The overall results of this study will be shared with Chart numbers pertaining to specific patients of individual providers will be given directly to those providers participating in the study. This information will allow for appropriate review and evaluation of a provider's own performance. Additionally, it may provide critical identification information of that provider's patients who might be considered at high risk for depression and/or suicide so that these patients might be managed or referred for intervention as the provider deems appropriate. Patient confidentiality will in no way be breeched, and no persons outside of the researcher and the providers will be made privy to any identifying information.

I hope that you will indicate your consent for participation by signing below and returning to me in the enclosed self addressed, stamped envelope. If you have any questions or concerns that you would like to address with me, or my Faculty Director, Denise Robinson, please feel free to contact either of us. Thank you for your consideration.

Sincerely,

Judi Frerick, RN, BSN

Faculty Director: Denise Robinson, RN, PhD Northern Kentucky University (859)

Appendix D

NORTHERN KENTUCKY UNIVERSITY
Highland Heights, Kentucky
Department of Nursing
MSN Program

11. Letter of Agreement/Investigative Project Committee

This is a letter of agreement between JUDI FRERICK, a graduate student in the Department of Nursing and Health Professions, and selected Thesis/Project Committee members. The purpose of this agreement is to establish a working relationship between the student and committee for the design, implementation and evaluation of a Master's level project or thesis.

It is understood that although this document is not legally binding, there is a professional responsibility involved should the need to change the composition of the group occur. The person initiating the change should notify all concerned, in writing, so that adequate replacements can be found without undue interruption of the process. In the event the topic chosen should be changed, then all the persons involved should initial the change accordingly.

The area of specific research focus is Adolescent DEPRESSION/SUICIDE and the estimated time of completion for the study is 3 months screening

[Redacted Signature]

[Redacted Signature]

Date

[Redacted Signature]

Committee Member

09/15/03
Date

Five copies needed:
Student
Committee members
Student file
MSN Program Director

6/11/96

How Well Do Providers Screen for Risk of Depression and Suicide in Adolescents?

Provider: _____

Type of Provider: _____

Question #			1	2	3	4	5	6	7	8	9	10	TOTAL
Weight of Question			10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	10.0%	100.0%
	Date of visit(s)	Type of visit(s): Well (W) or Acute (A)											
1. Chart #													
2. Age & Dx(s)													
3. Alternate Screening													
4. F/U rec's made for high risk patients													
1.													
2.													
3.													
4.													
1.													
2.													
3.													
4.													
1.													
2.													
3.													
4.													

Appendix F

ADOLESCENT EXAM

Date: _____

Name: _____ DOB: _____ Allergies: _____

WT: _____ HT: _____ Meds (Acute): _____

BP: _____ HR: _____ (Chronic: See medication sheet) Vision: R _____ L _____

S: Chief complaint: _____

Interim Hx: _____

ROS: _____

H: home _____

E: education, employment _____
environment, exercise _____

A: activities, abuse _____

D: drugs (alcohol, nicotine, Rx, street) _____
diet _____

S: sexual activity, STD, identity _____

S: safety, suicide, social _____

O:

PHYSICAL EXAM	DONE	NOT DONE	FINDINGS (ABNORMAL)
HEENT			
LUNGS/CHEST			
CARDIOVASCULAR			
ABDOMEN			
GU:			
TANNER STAGE:			
MS			
SKIN			
NEURO			

Assessment: _____

Plan: _____

Return: _____

Signature: _____

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PROFESSIONAL PUBLICATIONS

- Frerick, J. (2004). Nurse practitioner guidelines for urinary tract infections. *Journal of Geriatric Nursing*, 25(3).
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