

The Role of School Nurses in the Early Identification, Referral and Provision of Services
for Students with Early Signs of Mental, Emotional or Behavioral Disorders

A Dissertation Presented

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Dedication

This dissertation is dedicated in loving memory of my parents, Anna Di Piro Boland (1924-1998) and John H. Boland (1925-2008). To my mother, who taught me the value of experiential knowledge and effective communication. And to my father, whose innate inquisitive streak and love of learning led him to political advocacy.

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Abstract

The purpose of this qualitative study was to explore school nurses' (SN) perceptions of factors influencing their ability to identify, refer, and provide mental health services to students with *early* signs of mental, emotional, and behavioral (MEB) needs. The National Research Council and Institute of Medicine have urged a *preventive* public health approach to decrease adverse outcomes of unidentified and untreated MEB needs among children (O'Connell, 2009). Historically and theoretically based in public health, SN have daily contact with students and are in an optimal location for early identification, referral and provision of services, yet little empirical research describing their role is available.

Five focus groups with 29 SN were conducted and four themes emerged through analysis of data: *Frequent flyers*: student visits to SN offices, the observations that alert SN to potential MEB needs; *Digging to get the whole picture*: the process SN frequently used to collect information necessary to confirm MEB needs; *Road to referral*: the resources used and barriers encountered within the referral process; and, *Safety zone*: the important role SN play in the provision of services to students with early signs of MEB needs. Within the provision of services was a collective subtheme across all five focus groups: *What we need to better help our kids*. In this category SN identified their educational limitations and learning needs, as well as potential strategies to improve provision of services for students with MEB needs.

The findings of this study provide a lens into the complex and little explored area of early identification, referral and intervention processes used by SN to care for students with MEB needs. Understanding the role of the SN is a critical first step towards improving outcomes.

Chapter I

State of the Science

Introduction

The American Academy of Pediatrics (AAP) has reported an increase in pediatric patients with mental health needs seen in primary care (AAP, 2004). Pediatricians and other primary care clinicians have identified role ambiguity, lack of training, poor access to mental health specialists, and inadequate appointment time as barriers to comprehensively addressing children's mental health needs (AAP & American Academy of Child and Adolescent Psychiatry, 2009; Borowsky, 2010; Campo et al., 2005; Hacker et al., 2006; Horwitz & Kelleher et al., 2007; Pfefferle, 2007; Simonian, 2006). The AAP (2004) has recommended enhancing school-based mental health services provided by school nurses (SN) and advanced practice nurses in schools to address the mental health needs of children and adolescents. The National Association of School Nurses (NASN) concurs with this recommendation (NASN, 2008) however, empirical research that describes how SN identify, refer or participate in the treatment of these youth is not available. Additionally, substantive data to base future case management programs for long term follow-up also appears to be lacking. Therefore, the purpose of this qualitative study was to explore SN's perceptions of factors influencing their ability to identify, refer, and provide mental health services to students with *early* signs of mental, emotional and behavioral (MEB) needs. The specific aims of the study were to:

1. Describe how SN identify (assess) and make the decision to refer students (intervene) in need of mental health services.
2. Describe the services SN currently provide (intervening and ensuring) to students with early indicators of MEB needs.

3. Explore SN existing knowledge and self-identified educational needs related to the identification, referral and provision of services to students with early signs of MEB needs.

This chapter begins with a brief description of the definition, incidence, and prevalence of mental health needs in youth and the important role schools can play in the identification and treatment of these conditions. This section is followed by information on state of the science on this topic. This information was used to conduct focus groups with SN using the Preventive Public Health Conceptual Framework described in Chapter 2.

Background

A 2004 report of the National Research Council (NRC) and the Institute of Medicine (IOM) defined children's health as "the extent to which individual children or groups of children are able or enabled to: (a) develop and realize their potential, (b) satisfy their needs, and (c) develop the capacities that allow them to interact successfully with their biological, physical, and social environment" (NRC & IOM, 2004, p.33). Prominent experts in the field of child and adolescent mental health incorporate mental, emotional, and behavioral (MEB) components in this definition (O'Connell, Boat & Warner, 2009). An earlier landmark report of the IOM (1994) entitled *Reducing Risks for Mental Disorders: Frontiers for Preventive Intervention Research* acknowledged progress since President Kennedy's first call for mental health disorder prevention in the early 1960s and urged increased research in prevention and treatment of mental disorders. However, almost 50 years later children and adolescents are still under identified, referred, and treated for MEB.

Incidence and prevalence. Longitudinal epidemiological studies (surveys) have been used to determine the incidence (new cases) and prevalence (number or rate of cases that exists) of

MEB disorders in children, however to date, there is insufficient data on these cases (Kessler & Wang, 2008). Unfortunately, until recently most national surveys included very little sampling of children and adolescents (O'Connell et al., 2009). The National Comorbidity Survey (NCS), which used a household sample of 8,000 respondents' ages 15-54 years old was the first national longitudinal study to obtain prevalence data of mental disorders, to administer a structured psychiatric interview to a nationally representative sample, and to include subjects less than 18 years of age (Kessler, 1990, Kessler & Wang, 2008; Wang, Demler & Kessler, 2002).

Varying data on the prevalence of mental disorders among children has made it difficult to accurately identify the number of children residing in the United States impaired by MEB disorders (O'Connell et al., 2009). Overall, nearly one in five children between the ages of 9 and 17 has a diagnosable mental health disorder resulting in at least minimal impairment (Boothroyd & Armstrong, 2010; U.S. Department of Health and Human Services, 1999). By adolescence approximately 40% of U.S. children will have met criteria for a psychiatric diagnosis as defined by the Diagnostic and Statistical Manual of Mental Disorders (DSM) 4th (Costello, Mustillo, Erkanli, Keeler & Angold, 2003). Actual rates of impairment are even greater than this when considerations of children with subthreshold diagnostic symptoms experiencing impairment are also included (Essex et al., 2009; Hacker et al., 2006).

More recent surveys include the NCS-2, a follow-up of the NCS participants (Kessler, Gruber et al., 2007), and the National Comorbidity Survey Replication (NCS-R) a decade after the NCS (Kessler, Chiu, Demler & Walters, 2005; Kessler & Merikangas, 2004; O'Connell et al., 2009). The NCS and NCS-2 had no respondents younger than age 15. Following a request from Congress for data, a lower age limit was implemented in the NCS-R to include a sample of adolescents aged 13 -17 years old ($n=10,148$). This subset of the NCS-R, was the National

Comorbidity Survey Replication Adolescent Supplement (NCS-A) (Merikangas, Avenevoli, Costello, Koretz & Kessler, 2009). The NCS-R identified that half of all lifetime cases of MEB disorder began by age 14, three-fourths by age 24, and that variation exists in ages of onset for the various disorders (Kessler & Wang, 2008).

NCS-R data also elucidated information related to the age of onset (AOO) of the various mental health disorders. The various impulse control externalized disorders have the earliest AOO with an extremely narrow age range for onset. Eighty percent of all lifetime attention deficit hyperactivity disorder (ADHD) begins between the ages of 4 – 11. The AOO for oppositional defiant disorder (ODD) and conduct disorder is between the ages of 5 and 15. Half of all intermittent explosive disorder (IED) begins in childhood or adolescence.

Variation in AOO was noted to exist among the internalized disorders. Some anxiety disorders, such as phobias and separation anxiety disorder (SAD), have early AOO while others such as post traumatic stress disorder (PTSD), obsessive compulsive disorder (OCD), and seasonal affective disorder (SAD), have later onset. Mood disorder distributions demonstrated consistently low prevalence until early teen years, similar to AOO for later onset anxiety disorders. The median AOO distribution in the NCS-R for substance use disorders was between 18 – 29 years of age. The NCS-R documented the long delay between onset of mental disorder and the first treatment contact. Analysis of research data indicated that the disorders with earlier onset corresponded with increased delays in access to treatment and disorders of greater persistence. The NCS-R identified that nearly half of individuals with one disorder met criteria for two or more disorders (defined as co-morbidity).

One study by Merikangas et al. (2010) indicated that only 1.8% of youths 8 – 15 years old had more than one disorder. In this study the twelve month prevalence rates of Diagnostic

Statistical Manual –IV (American Psychiatric Association, Diagnostic and statistical manual of mental disorders, 2000) disorders among the children were lower than indicated by previous studies for most disorders except ADHD. Among the 3042 participants, 8.6% experienced symptoms of attention deficit hyperactivity disorder, 3.7% mood disorder, 0.7% panic disorder or generalized anxiety disorder, 0.1% eating disorders. The prevalence of ADHD was 2.1 times higher in males than females; the prevalence of mood disorders in females was double that of males. Approximately half of the children with ADHD sought mental treatment. Variation between the prevalence rates and presence of comorbidity obtained by Merikangas et al. compared to previous studies has been identified as attributable to the method and source of diagnostic criteria reporting. Whereas previous studies have been based on reports from both parent and child informants such as clinicians and teachers, Merikangas' study obtained reports of the diagnostic criteria by either the parent or child, excluding child informants. Input from child informants combined with parental and child input increases the validity of identification of DSM criteria in children (Merikangas et al., 2010). Merikangas identified the need for further research designed to validate the diagnostic classification of mental disorders in children.

Suicide. In the United States, suicide is the third leading cause of death in youth 10 – 19 years of age (AAP, 2004; Waldvogel, Rueter & Oberg, 2008). The suicide rate among children 10 – 14 years of age has more than *doubled* since 1980 (Dwyer, 2002). Current research data regarding the epidemiology of depression is sparse (Harmin & Magorno, 2010). It is estimated that 20% of adolescents contemplate suicide and 5-8% attempt suicide each year (CDC, 2010; Grunbaum et al., 2002). In the U.S., 6 out of 10 persons aged 35 or younger who committed suicide had contacted a primary care provider in the year prior to the suicide; 1 in 5 contacted a provider in the month preceding the suicide (Luoma, Martin & Pearson, 2002; Gardner et al,

2010). Children and adolescents with co-occurring mental and physical health conditions have been identified to be at an increased risk for self-harm, suicidal ideation and suicide attempts (Barnes, Eisenberg & Resnick, 2010).

The school setting has been identified as a logical place for MEB screening (Genrich & McGuire, 2009; Scott, et al., 2009). In 2009, the U.S. Preventive Services Task Force (USPSTF) recommended screening of adolescents ages 12 – 18 for major depressive disorder when systems are in place to ensure diagnosis, treatment, and follow-up (Williams, O'Connor, Eder & Whitlock, 2009; Wintersteen, 2010). The USPSTF concluded that evidence to recommend screening of children ages 7 – 11 was insufficient at the time (Raphel, 2009; USPSTF, 2009). Mental health experts have suggested targeted suicide screening for high-risk children and adolescents in schools and universal suicide screening in primary care clinics and emergency departments (Horowitz, Ballard & Pao, 2009). It is difficult to distinguish the variations of normal adolescent emotions from depressive disorders through one time screening (Horwitz & Wakefield, 2009). Therefore, watchful waiting over time, possible through the establishment of on-going relationships, combined with de-medicalized screening (Horwitz & Wakefield, 2009) and public health surveillance of mental health (Freeman et al., 2010) has been suggested. Since SN are in frequent contact with students and their families, they are in an ideal position to provide very early MEB needs identification, referral for indicated services, and ongoing surveillance through case management.

Mental health disparity. Disparity has been defined by the Health Resources and Services Administration as “population specific differences in the presence of disease, health outcomes, or access to care” (U.S. Dept. of HHS, 2009; Flores, 2010). Racial and ethnic disparities in children’s health care has been described as “quite extensive, pervasive and persistent” (Flores,

2010, p. e1014). A systematic review of literature (781 articles) published between 1950 and 2007 by the AAP Committee on Pediatric Research has identified that inadequate attention has been paid to racial and ethnic differences in health and health care of children (Flores, 2010). Thorough examination of 111 articles related to disparities among children classified as African American, Latino, American Indian, Alaskan natives and Whites provided key findings. Disparity among African American children as compared to White was most notable. African American children had higher rates of unmet needs, lower rates of access to primary care providers, a higher likelihood of having no usual source of care and higher hospitalization rates for ambulatory care sensitive conditions. Eleven studies reviewed documented Latino disparities in mental health care and behavioral and developmental needs. Latinos have higher odds of developmental delays but lower odds of being diagnosed with externalizing behavioral disorders. One study included in the systematic review (Guevara, Mandell, Rostain, Zhao & Hadley, 2006) identified that parents of Hispanic and Black children were less likely to report externalizing behavioral conditions than those of White children.

Overall, key disparities noted in children's mental health included less use of mental health services, outpatient services, informal services (peer counseling, self help) treatment from specialists for depression and use of medications, all of which could be provided within a school setting (Foy & Perrin, 2010; Gance-Cleveland, 2006; Institute for Family Centered Care, 2005; Kim, Viner-Brown & Garcia, 2007). Increased recognition of racial and ethnic disparities is important (Bigby & Perez-Stable, 2004; Brown et al., 2009; Center on the Developing Child at Harvard University, 2007; Crone, Bekkema, Wiefferink & Reijneveld, 2010). The importance of research which disaggregates major ethnic and racial subgroups, permitting examination of the determinants of health, disease and service utilization at a more individualized level has also

been identified (Bright, 2012, Gonzalez et al., 2010). The first national study (Gonzalez et al., 2010) to examine specific depression therapy types by disaggregating ethnic and racial subgroups has suggested future research which explores the extent to which patients' subjective experiences of racial bias may affect their access and use of mental health services.

Schools as Mental Health Care Venue Led by School Nurses

Consensus exists among most experts in the field of child and adolescent mental health that schools provide an optimal venue for the provision of mental health services (Dwyer, 2002; Evans 2006; Farmer, Burns, Phillips, Angold & Costello, 2003; Mills et al., 2006; Puskar et al., 2006; Weist, 2005). Nationwide, more than 52 million children and adolescents attend over 110,000 schools (Paternite, 2005; Stephan, Weist, Kataoka, Adelsheim & Mills, 2007). Schools permit increased accessibility for disadvantaged and vulnerable students and provide the opportunity to engage both parents and teachers in addressing the mental health needs of students (AAP, 2004; Cappella, Frazier, Atkins, Schoenwald & Glisson, 2008; Hacker et al., 2006).

Nurses are the most numerous health professionals in schools, possessing skills useful in identifying needs and promoting linkage and utilization of services (AAP, 2004; HRSA, 2007). SN are frequently the primary school service provider to which students turn for entry into the health care system (Adams & Barron, 2009; Hootman, Houck & King, 2003; Lear, 2007). Researchers (Schainker, O'Brien, Fox & Bauchner, 2005) have identified that children made eight times more visits to SN offices than to primary care offices. Other studies have also identified that most parents do not discuss behavioral or emotional needs with their pediatricians (Briggs-Gowan et al., 2000; Duncan et al., 1990; Horowitz, Leaf & Leventhal, 1998; Wissow et al., 2008). These findings, in light of the recent increase of children with mental health needs

identified by the AAP, may indicate that the need for mental health services in the school system is even greater than previously estimated.

The critical link with the failure to identify and treat students' MEB needs is that it results in diminished capacity to learn (Breslau, Lane, Sampson & Kessler, 2008; Briggs-Gowan & Carter, 2008; DeSocio & Hootman, 2004; Freudenberg & Ruglis, 2007; Paternite, 2005; Vander Stoep, Weiss, Kuo, Cheng & Cohen, 2003). The SN may play a key role at the intersection of health, including mental health, and academic achievement (Hootman et al., 2003; Maughan, 2003; NASN, 2008; Puskar & Bernardo, 2007; Simmons, 2002; Smith & Firmin, 2009). SN are capable of identifying the early signs of MEB disorders which are frequently identifiable in its earliest stages by absenteeism, academic failure (Weismuller, Grasska, Alexander, White & Kramer, 2007) disciplinary problems and suspensions (Stanley, Canham & Cureton, 2006). According to the CDC (2005) children with developmental, emotional and behavioral problems on average miss eleven or more school days per year. Increasingly, SN are being required to facilitate integration of services provided to children with complex medical *and* mental health needs (Denehy, 2006; Evans, 2006; Puskar & Bernardo, 2007; Rice, Biordi & Zeller, 2005). The integration of medical health and mental health screening and services has been reported to be enhanced in schools that have school based health centers (SBHC) (AAP, 2012). SBHC may be effective in increasing access to health services, reducing unnecessary emergency and urgent care visits, and hospitalizations. SBHC may also provide enhanced opportunity for prevention, early intervention, and harm reduction services for the school community it serves. Not all schools have SBHC however and some SN may have access to the services available through them while others do not.

Despite the fact that SN may have daily contact with students and are employed in an optimal location to identify, refer and provide services to students with MEB needs, little is known about their ability to identify, refer, and provide services (Calloway, 2007; Croghan, Johnson & Aveyard, 2004; O'Connell et al., 2009; Schainker et al., 2005). The link between somatic complaints and mental health needs has been identified (Hamrin & Magorno, 2010; Lee et al., 2009; Richardson & Katzenellenbogen, 2005). Despite the identification of this interrelationship, SN leaders reported in 2010 that SN and other school staff have no evidence-based intervention guidelines for children presenting to SN with somatic complaints (Shannon, Bergren & Matthews, 2010). Vernberg, Nelson, Fonagy & Twemlow (2011) examined aggression, victimization, and visits to the SN for somatic complaints, illnesses, and physical health injuries. Findings of this research has identified an association between student involvement in aggressor – victim interactions (as an aggressor, victim, or both) and increased somatic, illness and injury complaints. Although likely only one factor among many that prompt frequent visits to the SN, the findings of the study identified the importance of increased attention to aggressor – victim issues. Prevention, early identification and treatment of aggressor – victim problems has been urged. There is a need for identification of evidence based practice guidelines for SN and increased SN involvement and role expansion (Evans, 2006; Maughan, 2003; Mazurek Melnyk et al., 2007; Puskar & Bernardo 2007). Professionals both within as well as outside of nursing have indicated a need for on-going research in these areas (O'Connell, 2009; Schainker et al., 2005). The need for research focusing on the context in which SN practice has also been identified (Adams, 2009). Issues such as isolation from other nurses, varying educational levels, organizational context that fails to recognize the critical link between

physical health, mental health, and learning (Edwards, 2002; Smith & Firmin, 2009; U.S.P.H.S., 2000) may impact the SN's ability to identify, refer and provide mental health services

Descriptive data related to mental health services and the workforce that delivers services has been described as “simply not available to either the public or to researchers” (Hoagwood & Kolko, 2009, p.35). Only one empirical U.S. nursing study that quantified the identification, referral, and provision of services to students with health needs (including mental health) by SN (Bonaiuto, 2007) was identified in the review of the literature. In this study Bonaiuto (2007) measured the outcomes of a four year process improvement project designed to demonstrate the impact of SN case management for improvement in five key areas: attendance, behavior, academic performance, quality of life, and health compliance. In Bonaiuto's study, the use of a case management system increased identification of students with health problems and led to decreased absences and health care costs. Implementation of a case management system effectively provided improvement in one or more of the aforementioned key areas. In year one (2002-2003), 92% ($n=220$) of the students identified had improvement in one or more of the key areas. Improvement was also noted in the subsequent years, 74% ($n=385$) in year two, 84% ($n=575$) in year three and 84% ($n=1365$) in year four. Overall in the four years of project implementation, 84% of the students identified and case managed improved in one or more of the five target areas. The research clearly demonstrated that SN case management of students struggling academically due to health needs (including mental health) promoted improvement in outcomes. The work of Bonaiuto (2007) as well as other researchers (Center for Mental Health in Schools at UCLA, 2008; Weismuller et al., 2007) has identified that the establishment of widespread, systematic, data-driven measurement feedback systems necessary for effective case management is in the very early stages in the United States. The establishment of measurement

feedback systems (MFS) is essential for effective delivery of evidence based practice (Bickman, 2008; Gardner et al., 2010; Garland, Bickman & Chorpita, 2010; Nemeroff et al., 2008; Selekman & Guilday, 2003).

Since 1999 a framework entitled the National Healthy School Standard (NHSS) has been used in the United Kingdom to help schools promote the link between health and education. The three strategic aims of the NHSS are to reduce health disparities, promote social inclusion and raise educational standards. The framework has been identified as a model which may potentially be used to strengthen the role of SN and school health programs around the world (Wicklander, 2005). Within this model, the SN role has been identified as key for bridging the gap between health and education. Examination of the effectiveness of efforts to bridge the gap through increased integration of home, school, and mental health services for children that have psychological and behavioral problems has been described as inconclusive by some researchers (Wilson et al., 2007). In the United States SN have expressed concerns similar to pediatricians regarding lack of clarity in role descriptions, inconsistencies, work boundaries and adequacy of training to provide services to children with mental health problems (Green & Reffel, 2009; Rice et al., 2005).

Still, lack of research evidence to support the role has led SN in the United Kingdom (Croghan et al., 2004; Toofany, 2005) and the United States (Brandt, 2002; Denehy, 2006) to report feeling “invisible.” SN have been described as a highly valued resource quietly working to effect positive results in children (Pulcini, Couillard, Harrigan & Mole, 2002; Stevenson, 2010), and capable of transforming school communities (Mazyck, 2007). Yet, SN have also been described as selling themselves short when communicating to others what they really do (Calloway, 2007; Denehy, 2006; Gordon & Nelson, 2005; Gordon, 2006) thereby keeping the

potential scope of their nursing practice invisible to school administrators, parents, other school staff (Green & Reffel, 2009; Guttu, 2007; Tetuan & Akagi, 2004).

Following comprehensive examination and synthesis of many years of research, the National Research Council (NRC) and the Institutes of Medicine (IOM) have urged a preventive, public health approach to transform the failing, fragmented children's mental health system (O'Connell et al., 2009). This transformation must begin by defining the individuals and organizations that constitute the structures of the mental health system (Garland et al., 2010; Kelleher & Stevens, 2009; Stelk & Slaton, 2010). Obtaining practitioners' perspectives to bridge the research-to-practice gap has also been identified as essential (Adams, 2009; Borowsky, 2010; Wandersman et al., 2008).

Access to Mental Health Services in Schools.

School Mental Health Services in the United States 2002 - 2003 was the first source of information on the provision of school mental health in approximately 83,000 U.S. public schools (Foster et al., 2005). The objectives of this Substance Abuse and Mental Health Services Administration (SAMHSA) survey were to identify: (1) the mental health problems and services provided in the U.S. public school setting, (2) the administrative arrangements for the delivery and coordination of mental health services in schools, (3) the types and qualifications of staff providing mental health services, (4) issues related to funding, budgeting and resource allocation, and (5) use of data regarding mental health services. Survey results indicated that 73% ($n=60,590$) of the schools reported that social, interpersonal or familial problems were the most frequent mental health problems for students of both sexes. Later SAMHSA research (SAMHSA, 2008; SAMHSA 2009) substantiated survey findings, identifying that the most common reason adolescents ages 12 – 17 years received mental health treatment in 2007 was due

to depression (50%), followed by problems at home or in family (28.8%), breaking rules or acting out (25.1%), contemplated or attempted suicide (20.2%), feeling afraid or tense (17.9%), problems at school (17.2%), trouble controlling anger (16.8%), and problems with friends (12.1%).

School Mental Health Services in the United States 2002 - 2003 (Foster, 2003) also identified that the most common types of school mental health providers were school counselors, followed by nurses, school psychologists, and social workers. SN spend approximately one third of their time providing mental health services. Nurses were considered by the majority of schools to be mental health providers. SN reported very high caseloads and provided mental health services that were informal rather than traditional in nature. Raviv, Sharvit, Raviv and Rosenblat-Stein (2009) have described the distinction between formal and informal sources of support to children experiencing symptoms of mental health disorder and their families. Whereas formal support is through formal institutions such as services provided through community mental health centers, informal sources are found among the individual's social support networks including relationships which may be relied upon in times of need (Raviv et al., 2009).

Overview of the Role of School Nurses Addressing MEB Needs

The National Association of School Nursing (NASN) was founded in 1968 as a department within the National Education Association. With an estimated 78,000 nurses, SN are the most numerous health professionals working in schools (Health Resources and Services Administration, 2007). The definition of school nursing provided by NASN identifies seven roles of a SN. These seven roles are as follows: provision of direct health services to students and staff; provision of leadership for the provision of health services within the school; provision

of screening and referral for health conditions; promotion of a healthy school environment; promotion of health; provision of leadership role for health policies and programs; liaison between family, community, and health care providers (NASN, 2002b).

The NASN in their 2008 position statement stated that SN contribute to a positive school environment. As part of an interdisciplinary team, SN may promote initiatives that enhance the development of protective factors such as self-esteem and help-seeking behaviors (NASN, 2008). SN involvement in educational initiatives such as anti-bullying programs, anti-violence programs and suicide prevention has also been urged by the NASN. SN have long provided numerous interventional services. According to the NASN they have the capability to collaborate with other providers and contribute vision, cohesive policy, potential leadership, infrastructure, capacity building, and appropriate accountability (Center for Mental Health in Schools at UCLA, 2008; NASN 2008).

In Massachusetts, the call for translation of research into practice led to the establishment of the Massachusetts School Nurse Research Network (MASNRN) in 2004 (Pulcini, Sheetz & De Sisto, 2008). This network represents a partnership of the Massachusetts School Nurse Organization, the Department of Public Health School Health Unit, and Boston College Connell School of Nursing. As the first SN practice based research network in the nation, its mission was to establish a representative, collaborative group of professional SN, nurse academicians, and others to engage in translational research (Pulcini et al., 2008).

Mary Ann Gapinski RN MSN NCSN, (advisor to the Massachusetts Department of Public Health School Health Program, member of MASNRN and current President of the National Board for Certification of School Nurses) conducted a mixed methods study that included focus groups ($N=15$) to explore the concerns of Massachusetts SN in managing mental and behavioral

health needs in the school setting. The quantitative portion was a survey ($N=763$) to determine the frequency of mental or behavioral health encounters seen by SN in their offices; and to identify why SN document far fewer mental and behavioral health encounters compared to the national and state wide incidence data for child mental and behavioral health conditions (Gapinski & Guiliano, 2008, unpublished study). Among the SN respondents ($n=679$) that completed the demographic information portion of the survey 99% ($n=672$) were female, 98% (665) Caucasian, 83% (564) were over age 46. Approximately 90% (611) possessed bachelors or masters degree level of education, 65.4% (444) possessed a BSN, 11.6% (79) MSN, only 29.7% (202) were nationally certified as a SN.

Gapinski and Guiliano's (2008) SN study reported that a total of 80% ($n=492$) felt confident that they possessed skills necessary for assessment of physical vs. mental or behavioral health concerns. 66% (410) felt confident in their skills for early identification of MEB concerns. Survey questions related to the importance of SN communication with physicians and other mental health providers identified that 88.3% (532) of respondents felt it was important or very important (35.2% (212) important, 53.1% (320) very important). Yet among SN responses ($n=636$) to questions related to collaboration, 97% (617) reported spending less than 3 hours per week collaborating with primary care providers and 89% (566) spent less than three hours per week speaking with parents about the MEB needs of their children. Only 10% referred children with suspected MEB needs to primary care. These findings support further descriptive exploration of the SN role in identifying and meeting the needs of children with MEB needs and how they collaborate with other health care providers in the referral process.

School nurses knowledge and academic preparation. In 2002, the NASN indicated that the minimum qualification for the professional SN should be a baccalaureate degree in nursing

(BSN) from an accredited college or university (Kaiser, Carter, O'Hare & Callister; 2002; NASN, 2002b). In addition, the NASN urged national certification of SN by the National Board for Certification of School Nurses (NBCSN). The AAP (2008) supported the position of the NASN. The certification examination for SN is comprised of the following components: health appraisal (27%), health problems and nursing management (28%), health promotion and disease prevention (20%), special health needs (10%), professional issues (15%) (NBCSN, 2010).

Despite NASN and AAP support of BSN academic preparation and national certification, wide variation exists among state regulations pertaining to SN national certification and required academic preparation to work as a SN (Praeger & Zimmerman, 2009). In over half of the 50 U.S. states, ($n=34$, 66%) "school nurse" is a protected title, meaning that only individuals meeting state criteria may call themselves SN. In addition, over half ($n=26$, 51%) of states specify legislation mandating the hiring of SN (Praeger & Zimmerman, 2009). Variability in educational preparation among SN has been reported as a barrier to moving the specialty and status of SN forward (Denehy, 2007). Additional barriers identified include lack of and decreasing funding and confusion regarding the role of SN. These factors contribute to increasing student and SN ratios (Maughan, 2009) which may adversely impact a SN ability to identify students' health care needs.

Overall it appears that SN lag behind in academic credentials when compared to other professionals engaged in the provision of mental health services in schools. One report (Broussard, 2004) estimated that nationwide among the 58,000 practicing SN, 75% ($n= 43,500$) had a baccalaureate degree in nursing (BSN). The remaining 25% ($n= 14,500$) had either an associate degree in nursing (ADN) or a post baccalaureate degree. In the SAMHSA survey

(Foster et al., 2005) among SN surveyed ($N=63,661$), 54% ($n=34,377$) possessed a masters degree (MS or MSN). Despite this increased percentage of SN with a masters degree, SN in the SAMHSA survey still fell behind other school mental health professionals in level of academic credentials. As a comparison, the majority of the other school mental health professionals (school psychologists, counselors, social workers) were prepared at or above the masters degree level.

Although SN may possess lower levels of academic credentials when compared to mental health service providers in schools, nursing education at the baccalaureate level has been described as well-suited to enable SN to *comprehensively* address mental health (AAP, 2008, NASN, 2003, NASN, 2008). A distinctive difference between many providers of mental health services and nurses with a BSN or MSN level of education is the scope of practice. According to the American Association of Colleges of Nursing (AACN), BSN or MSN prepared nurses can function as leaders by partnering with populations in improving health at the individual, system and community levels. Unlike other clinicians providing services which focus on individual level of care, the goal of practice by the BSN or MSN level nurse is the health of the public (AACN, 1998; Kaiser et al., 2002). In addition, the provision of mental health services by a BSN or MSN level nurse is within a full spectrum continuum. The continuum is inclusive of mental health promotion, prevention of mental disorders through early identification, implementation of effective interventions and treatment as well as management of MEB disorders as part of a multidisciplinary team (NASN, 2008). Unlike most other school-based professionals, nursing educational preparation includes pharmacology, providing SN the educational preparation to safely administer medications in schools and to monitor for effectiveness and potential side effects (NASN, 2003). In addition, nurses prepared at the

masters degree level with specialty training in pediatrics or mental health are especially suited to provide care to children with diagnosed MEB disorders (National Association of Pediatric Nurse Practitioners (NAPNAP), 2007). They may be able to prescribe and provide leadership in collaboration with SN and other school-based professionals (NAPNAP, 2007; NAPNAP, 2009; O'Grady, 2004). Nursing literature has identified establishment of SN and advanced nurse partnerships as a potential strategy to promote access and utilization of services (De Socio, Elder & Puckett, 2008). To date no empirical studies have been found that explore these issues.

Advanced nurse education, as well as incorporation of information applicable to care of students with severe MEB needs into the basic level of nursing education is strongly supported by the American Nurses Association (ANA), American Psychiatric Nurses Association (APNA) and the International Society of Psychiatric Nurses (ISPN) (APNA & ISPN, 2008). Hootman et al. (2003) stated that SN and other personnel will be more effective if they have increased access to advanced practice nurses. Advanced education programs for psychiatric mental health nurses and community nurses should contain detailed information about nursing roles within Systems of Care (Evans, 2006). System of Care is a care model used to promote inclusion and provision of services to children diagnosed with severe emotional disturbances (Walter, 2008).

In the U.S., the predominant focus has been on the management of MEB disorders. Nursing literature provides little information regarding the utilization of SN or advanced practice nurses for *early* identification of MEB needs or *prevention* of *MEB* disorders. The ANA calls for nurses to participate in preventive strategies. In addition, there has been a recent call by nursing researchers, educators, and clinicians to increase attention to the effectiveness of preventive strategies (Breitenstein et al., 2007; Campo et al., 2005; Carter, Bradley, Richardson, Sanders & Sutton, 2006; Courey, 2006; Evans, 2009; Grossman et al., 2007; Puskar & Grabiak, 2008;

Staten, 2008; Yearwood & McClowry, 2008). Though urging research which focuses on mental health promotion strategies, prevention, early identification, and effective intervention, very few have identified the potential contributions SN may make to this endeavor (Calloway, 2007).

In 2005, the *Essentials of Psychiatric Health Nursing BSN Curriculum* was set forth by the Education Council Task Force of the International Society of Psychiatric Mental Health Nurses (ISPN). In 2007, a Task Force of the American Psychiatric Nurse Association (APNA) updated the document. Combined task forces of the ISPN and APNA continued through 2008 (ISPN & APNA, 2008; AACN, 2008). The ANA, ISPN and APNA state that preparation for the practice of psychiatric nursing begins at the pre-baccalaureate level. The *Scope and Standards of Psychiatric-Mental Health Clinical Practice* (ANA, APNA & ISPN, 2007) advises integration of mental health curricula throughout the various areas of baccalaureate curriculum, spanning several semesters.

Various federal reports have identified the need for health professional educational reform (IOM, 2001, IOM, 2006, New Freedom Commission, 2003; SAMHSA, 2005; Delaney, 2008). The New Freedom Commission on Mental Health Report (2003) identified two principles necessary for transformation of the mental health system. First, services and treatment must be patient and family centered. Second, care must focus on patient and family resilience, the ability to develop coping skills (Huckshorn, 2007). In *Health Professions Education: A Bridge to Quality* (IOM, 2003), the IOM identified five core competencies necessary for all health professionals. The five core competencies are provision of patient centered care, work in interdisciplinary teams, use of evidence based practice, application of quality improvement, and use of informatics. These five competencies are particularly applicable to improvement in mental health services and services provided by SNs. They have been an integral component of

the Essentials of Baccalaureate Education for Professional Nursing Practice (1998) developed by the American Association of Colleges of Nursing (AACN, 1998; AACN 2008) for some time (Long, 2003). Numerous reports (Foster et al., 2005; New Freedom Commission, 2003; Raphael, 2009; World Health Organization, 2001) have identified nurses, including non-mental health nurses, as playing a key role in the delivery of mental health services at all levels of intervention.

School nurses and the identification of MEB needs. Since 1972, NASN has provided a position statement related to mental health. The most recent revision (2008) urges SN to promote student success by “using a systematic approach to healthy social and emotional development that strengthens students, families, schools and communities” (NASN, 2008, p. 2). The NASN position statements extend the scope of SN services beyond the needs of students to include the entire school community. It advises SN to employ a comprehensive approach in the assessment, referral, and provision of services for the mental health as well as the physical health of the school community (NASN, 2008).

The role of the SN at the level of individual-focused practice is not diagnosis of mental health disorders (AAP 2008; NASN 2008). The role of the SN is promotion of mental health; early identification of mental health needs through screening, communication and observation; appropriate referral; monitoring, and follow-up for students identified with MEB disorders (NASN, 2008; Hootman et al., 2003; Puskar & Bernardo, 2007). Ideally, identification of students with early indicators of MEB needs begins prior to the school years (Baggett, Warlen, Hamilton, Roberts & Staker, 2007; Breitenstein et al., 2007; Hagan, Shaw & Duncan, 2008; Harwood, O’Brien, Carter & Eyberg, 2009). In a study of the effectiveness of universal screening at time of school entry (Essex et al., 2009), it was determined that universal screening can effectively identify children likely to develop recurrent co-morbid conditions. In this study,

mothers and teachers reported on a community sample of children ($N=328$) in kindergarten and grades 1, 3 and 5 with internalizing and externalizing symptoms. Study conclusions indicated that children most likely to develop recurrent co-morbid symptoms can be accurately identified by the end of grade 1 using the MacArthur Health and Behavior Questionnaire (HBQ), an inexpensive universal screening tool (Boyce et al., 2002; Essex et al, 2002). The HBQ addresses four components of health providing a dimensional rating of 4 to 8 year olds in the following domains: emotional and behavioral, physical health, social adaptation, and adaptation to school (Essex et al., 2002).

In the first study to provide national estimates of use of child mental health services and unmet needs for such services, Kataoka, Zhang and Wells (2002) used secondary analysis of three national data sets (National Health Interview Survey $N=28,867$, National Survey of American Families $N= 11,017$, and Community Tracking Survey $N=8,852$) to examine mental health service utilization by non-institutionalized children ages 3 – 17. Children were categorized as having unmet needs if they had mental health screening results which exceeded established cutoff points but did not receive mental health follow up. In their study 80% of children and adolescents 6-17 years olds who were identified as needing mental health services did not receive them. Utilization of mental health services by U.S. preschool children with behavioral problems such as aggression, defiance and hyperactivity was extremely low (2-3%).

Preschool or pre-entry screening may provide SN a valuable first opportunity for the establishment of open communication and on-going relationships with students and their families. Interpersonal engagement of SN with students and their families may provide the opportunity for identification of protective factors as well as discussion of specific biological, social, environmental, and psychological risk factors. Particularly among families in which

universal screening identifies that targeted intervention is indicated, successful intervention may be contingent upon established therapeutic communication and relationships. Researchers (Briggs-Gowan & Carter, 2008) have identified that clinically significant MEB needs do exist in children less than 36 month of age. In addition, screening with a standardized tool in early childhood permits early identification.

For the student and families in which MEB needs are first identified, community health and SN interpersonal engagement with the family and child may be helpful in identifying barriers to on-going service access and utilization (Kramer, Vuppala, Lamps, Miller & Thrush, 2006). For students with existing diagnosed MEB disorders, SN inclusion in the student's MEB treatment team may be helpful in the event that the student requires hospitalization or emergency treatment. SN can assist in planning for a student's reentry and transition into school following discharge from an inpatient or residential stay (Hootman & DeSocio, 2004). Medical information entered into the student record by a SN becomes part of the student's academic record, permitting collaboration with other school personnel in the provision of services to the student (NASN, 2003; U.S. Dept. of Health and Human Services and U.S Dept. of Education, 2008; U.S. Dept. of Education, 2008).

School nurses and mental health screening. Thus far, the NASN, AAP or governmental agency have not provided a unified national model which specifies how SN should identify and refer school children or individuals in the school community suspected of having MEB needs (O'Connell et al., 2009). Specific expectations of the SN role are impacted at the local level by individual school systems, state regulations and regionalized efforts to implement National Health Objectives as specified in Healthy People 2020 (U.S. Dept. of Health and Human

Services, 2009). The objectives of professional organizations and the aims of consumer advocacy groups, which may include students and their families, may also influence the SN role.

Nurse leaders Puskar and Bernardo (2007) have described an ABC's approach for general screening comprised of the following to be used by SN: An assessment of the student's overall appearance, B behavioral assessment, C conversational assessment in which the student's life patterns are discussed. Pavletic (2011) has described the establishment of SN and student relationships built on trust and acceptance and its capability to foster attachment of the student to the SN as a responsive adult. This sense of attachment may foster a sense of school connectedness thereby promoting academic success. The use of intentional interviewing skills by SN is an important skill necessary to identify specific stressors the student is experiencing. Specifically inquiring if a student is experiencing aggression or victimization for example, has been identified as important for early identification and prevention of student mental health issues related to these behaviors. (Vernberg et al., 2011; Zinan, 2010)

The federal government mandates mental health screening of Medicaid-eligible youth as a regular component of periodic medical assessments (Early and Periodic Screening, Diagnosis, and Treatment – EPSDT) in primary care settings. There are no mandatory screening requirements however for early identification of MEB needs for children not enrolled in Medicaid. Yet, early identification of MEB needs in children regardless of insurance status necessitates the use of validated screening instruments as well as use of therapeutic communication and observational skills. The use of screening questionnaires has been identified to be more effective than observation or non structured interview or assessment alone (Genrich & McGuire, 2009). In 2001 federal action against the Commonwealth of Massachusetts (Rosie D. vs. Romney) for failure to provide medically necessary required services for children

receiving EPSDT services resulted in a remediation plan requiring a total restructuring of the children's mental health system including mental health screening. The Rosie D. Remedial Plan specifies that physicians, nurses, and other primary care professionals should use standardized screening instruments including the Pediatric Symptom Checklist (PSC), Ages and Stages Questionnaire, Social- Emotional and Child Behavior Checklist (CBCL) for assessments in primary care settings (Boothroyd & Armstrong, 2010).

The Director of Research for the National Association of School Nurses has recommended that SN increasingly use the PSC as a screening and referral tool for identifying MEB problems in students who frequently come to the SN with vague somatic complaints (Shannon, et al., 2010). The PSC is a psychosocial screening checklist with demonstrated validity and reliability designed to facilitate recognition of MEB problems so that appropriate interventions may be initiated as early as possible (Jellinek, Murphy & Burns, 1986; Jellinek, Murphy, Little et al., 1999). Two versions are available, the PSC which is completed by parents and the Y-PSC completed by adolescents age 11 and older. The PSC 35 items are rated as "never", "sometimes" or "often" and assigned scores of 0, 1 or 2 respectively. Cut off scores exceeding 28 in children ages 6 through 16, 24 in children ages 4 and 5 or 30 for Y-PSC respondents suggests the need for further evaluation by a qualified health or mental health provider. A briefer version, the PSC 17 is also available but appears less effective than the PSC 35 in detecting anxiety disorders (Kostanecka et al., 2008). In two studies (Jellinek et al. 1988; Murphy, Reede, Jellinek & Bishop, 1992) in which the results from the PSC were compared to results from the CBCL, the PSC exhibited high rates of overall agreement (79% and 92%), sensitivity (the percentage of all true cases are identified accurately 95% and 88%) and specificity (the percentage of all true non cases identified correctly 68% and 100%). In the first longitudinal examination of the stability

and change in PCS scores in a sample of ambulatory patients (Hacker, Williams, Myagmarjav, Cabral & Murphy, 2009), the referral process was identified as playing an important role in children's mental health. A pediatrician's referral for additional mental health services for children with positive PSC scores resulted in PSC score improvement among children that obtained follow-up mental health services. Among children with positive PSC scores that did not return to clinic for follow up care, the PSC scores were noted to remain persistently high. Alternate strategies to reach out to these families, including phone calls to schedule revisits, was urged to improve outcomes among this population.

A study which examined the psychometric properties of the PSC among 6,590 study participants 6 to 22 years of age enrolled in Florida's Medicaid program demonstrated good reliability and validity (Boothroyd & Armstrong, 2010; Polit & Beck, 2008). The participants were categorized into five distinct and mutually exclusive disability groupings creating subgroups of level of mental health disability (no known disability, physical health disability, mental health disability, co-morbid disability, and could not determine). Since surveys were mailed to caregivers over a period of consecutive years, assessment of consistency of the classification of study participants as above or below the PSC criterion score on two administrations (stability) was obtainable. The PSC's discriminate validity was examined in three ways: (1) through analysis of variance (one way ANOVA) on the scores of youth across the various disability classifications, (2) by contrasting the mean scores of children whose caregivers did not report a need using a t test and through use of a chi-square analysis contrasting, and (3) comparing the classification of children as above or below the criterion score on the PSC with caregivers reports of the child's need for mental health services in the

six months preceding completion of the survey. Evaluation of the construct validity of the PSC was through calculation of Pearson product moment correlations within each disability group between youths scores on the PSC and their caregivers assessments of their physical health, daily activity functioning and family quality of life (CHQ scores). As hypothesized, with the exception of the co-morbid disability subgroup, significant negative correlations were found between children's PSC scores and their scores on the CHQ. Overall, findings from this study support the use of the PSC as an appropriate screening tool for use among children enrolled in Medicaid.

School nurses, referral, and collaboration. The SN may provide a valuable contribution as a leader of a multidisciplinary team within the school consisting of counselors, teachers, and mental health clinicians (AAP, 2008; NASN, 2008). The overall goal of this team is identification of student risk and protective factors, as well as provision of effective interventions which promote the students MEB health and subsequent academic achievement. Frequently, access to mental health clinicians and mental health services is outside the school, in the community (U.S. Dept of Health and Human Services, 1999). In addition, factors influencing a student's risk and protective factors encompass the student's family members and community (AAP, 2008; Cappella et al., 2008). For these reasons, the SN must work collaboratively not only with the school based team but also with mental health professionals outside the school, family members, a variety of interested community members, and community-based agencies (Breitenstein et al., 2007; Puskar et al., 2007). True collaboration involves working together both within and outside of the school to promote the development of protective factors and to improve intervention effectiveness and efficiency (Center for Mental Health in Schools at UCLA, 2008). At a broader level, SN may act as strong advocates for child mental health

programs in the political and public arena by joining forces with other health professionals in the school setting and the community (NASN, 2008).

Effective communication, particularly with physicians is essential to close the gap between the mental health services provided in school and those the student may receive in through community based providers. Although effective communication between SN and primary care providers appears essential for both SN employment satisfaction as well as improvement in student outcomes, few studies have examined the importance of effective communication and integrated services. Results from one study (Volkman & Hillemeier, 2008) which used a stratified random sample of SN ($N=615$) identified that greater SN leadership appeared to facilitate higher levels of effective communication with community physicians and better health care service for students. Greater autonomy in developing school health policies and programs was also identified as having important implications for improvement in SN practice.

School nurses and provision of services. New SN are reported as frequently overwhelmed with the enormous roles expected of them (Smith & Firmin, 2009). Evaluated by the tasks completed rather than the outcomes of interventions, school nursing appears to lack the research to support the effectiveness of its practice (Selekman & Guilday, 2003). SN documentation of presenting symptoms and nursing tasks performed versus longitudinal tracking and documentation of outcomes may impede identification of underlying dynamics and effectiveness of services provided. Budget constraints and lack of data regarding SN effectiveness has compelled school systems to question the need for SN (Tetuan & Akagi, 2004).

A phenomenological study (Smith & Firmin, 2009) which examined SN perspectives of challenges and how they perceive success in their professional nursing roles has provided insight into the complexity of the provision of services to students. Using semi-structured interviews

with 25 SN from a school district with approximately 59,000 students, the study identified that SNs view successful connections with parents as vital to their success in school nursing practice. Success was also defined as reaching and advocating for as many children as possible, trying to keep as many children as possible in school by providing appropriate care.

The AAP has identified the importance of the SN as a partner in providing comprehensive health services to all children, not merely those with special health care need (Murray, 2008). Reaffirmation of this type of partnership underscores SN role in promotion and prevention possible through working with children and their families. The AAP and the American Academy of Child and Adolescent Psychiatry (AACAP) in their joint task force on mental health has stated that the identification, initial treatment, and care of mental health problems should take place in the child's "medical home." The "medical home" is defined as a model of delivering primary care that is accessible, continuous, comprehensive, family centered, coordinated, compassionate, and culturally effective to all children and youth (AAP, 2012). Within the "medical home" each patient is an active participant in his/her care and the care provided employs a coordinated and integrated system-based approach that is oriented toward the whole person, ensuring quality and safety (American Academy of Family Practice, American Academy of Pediatrics, American Colleges of Physicians and American Osteopathic Association, 2007; Druss, Mays, Edwards & Chapman, 2010). In relation to the provision of mental health services, perhaps the SN through her relationship with individual children and their families can more effectively serve as the link to the medical home. Through identification of risk and protective factors, early identification of MEB disorder, provision of effective evidence based treatment and longitudinal tracking of measurable outcomes, improvement in child mental health may be attainable.

Summary

The number of children with mental health needs has increased dramatically in recent years. Many children requiring mental health services are unable to access and utilize the services they require. There is consensus among many experts that schools provide an optimal location for the provision of mental health services (Dwyer, 2002; Farmer et al., 2003; Mills et al., 2006; Puskar et al., 2006). The provision of required student services is federally mandated, yet no national regulations direct who performs the service. SN are the most numerous health professionals in schools, possessing skills useful in identifying needs and promoting referral, access and utilization of appropriate mental health services. The federal government has identified that nurses play a key role in the delivery of mental health care at all levels of intervention and that there is a need to expand and improve the services provided by nurses. There is very limited literature, empirical or descriptive, that explores this area. This study sought rich descriptions from SN which specifically described how they identify, refer, and provide mental health services to students with early signs of MEB disorders. It also explored SN perceptions regarding the adequacy of their knowledge, both experiential and academic, to function in this role.

Chapter II

Framework

Introduction

The public health process model used in this study has provided the conceptual as well as organizational framework which undergirds the study. This model was an ideal fit for research involving school nurses (SN) which are historically and theoretically based in public health (NASN, 2002a, Vessey & McGowan, 2006). The public health process model is one of the essential components of a preventive public health approach proposed as a potential strategy to address the inadequacies of the currently failing child mental health system (O'Connell et al., 2009; Stiffman et al., 2010). The four essential components of the preventive public health approach are (1) core values that underlie the effort, (2) guiding principles that steer the work, (3) a public health process consisting of three process/action steps (assessing, intervening and ensuring), and (4) a new model of intervening consisting of a range of interventions necessary for a comprehensive approach (Miles et al., 2010). For the purpose of this study, primary focus was on the third component of the preventive public health approach, (assessing, intervening and ensuring) as graphically represented in Figure 1.

A PUBLIC HEALTH PROCESS:

Assessing, Intervening and Ensuring

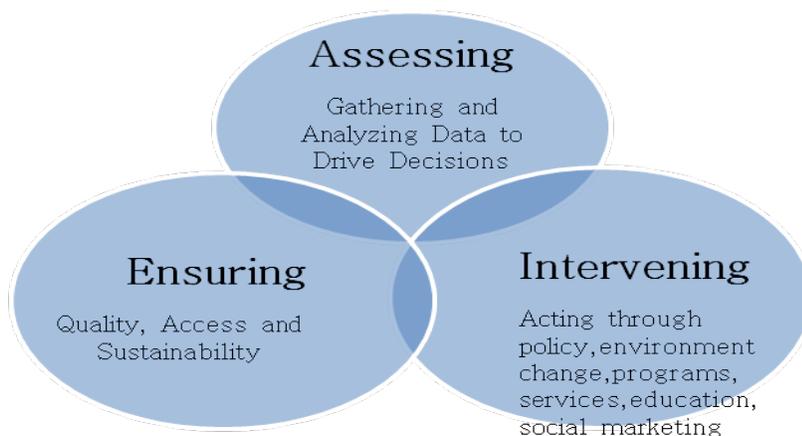


Figure 1. A Conceptual Framework for a Public Health Approach to Children's Mental Health

Adapted from "A Public Health Approach to Children's Mental Health: A Conceptual Framework" by J. Miles, R.C. Espiritu, N.M. Horen, J. Sebian & E. Waetzig, 2009, *Data Matters*. Georgetown University Center for Child and Human Development.

Background

The potential a preventive public health approach conveys as a strategy to address the inadequacies of the currently failing child mental health system is widely recognized (O'Connell et al., 2009, Stiffman et al., 2010). To promote implementation of the public health approach to children's mental health, researchers from Georgetown University Center for Child and Human Development (Miles et al., 2010) have published a preventive conceptual framework.

Nationwide, various community-based initiatives funded through the Substance Abuse and Mental Health Services Administration (SAMHSA) Building Healthy Communities Initiative

have demonstrated the effectiveness of the approach. As recipients of Mental Health Transformation Grants from SAMHSA, the states of Washington and Texas, for example, have made the public health approach a core feature in the transformation of the children's mental health system (Crump, 2007; Ganju, 2008). In these states, local communities were selected to promote transformation of the mental health system at the local level through development of family networks, workforce development and training, improvement in data collection and advancement in information technology. An example of a specific program which has demonstrated effectiveness in facilitating children's academic adjustment to elementary school and reduction of childhood mortality from preventable causes is the Nurse-Family Partnership (NFP) program. This program has been implemented effectively in 23 counties in Texas and 10 counties in Washington State as well as in numerous other states (Hill, Uris & Bauer, 2007; Nurse Family Partnership, 2010, Olds, et al., 2007).

The Nurse-Family Partnership Program developed by Olds and Kitzman is an evidence-based community health program. In this program, mothers are partnered with a registered nurse who makes home visits throughout the woman's pregnancy and provides follow-up until the child reaches two years of age. Several randomized, controlled trials have demonstrated the efficacy of the program (Kitzman, Olds, Henderson et al., 1997; Olds, Henderson et al., 1998; Kitzman, Olds, Sidora et al., 2000; Olds, Robinson et al., 2002; Olds, 2002; Olds, Kitzman, Cole et al., 2004; Olds, Kitzman, Hanks et al., 2007). The goals of the program are to: improve pregnancy outcomes; improve child health and development; and improve the economic self-sufficiency of the family.

One of the trials (Olds, Kitzman, Cole, 2004) conducted in urban Memphis used a sample of 743 primarily Black women, less than 29 weeks gestation. The study participants had two or

more socio-demographic risk factors (unmarried, less than 12 years of education, unemployed). The participants were randomly assigned to receive registered nurse home visitation or comparison services. Numerous outcomes were assessed: number and timing of subsequent pregnancies; months of employment; use of federal assistance; educational achievement; behavioral problems attributable to substance use; rate of marriage or cohabitation and duration of relationships; child behavioral problems, intellectual functioning, and receptive language. Results of the study demonstrated the effectiveness of the program in reducing risk factors as well as improvement in both maternal and child outcomes. The women in the intervention group had fewer subsequent pregnancies and birth, longer intervals between births, longer relationships with current partner, and decreased use of federal assistance. The children demonstrated higher intellectual functioning and receptive vocabulary scores. The children also had higher academic achievement and less aggression. The children who received nursing visitation were more likely to have been enrolled in formal, out-of-home care between two and four years of age. Reassessment of outcomes when the child reached age six identified that the mother and child had sustained improvement four years after the program ended. A subsequent follow-up when the child reached age nine also identified sustained and continued improvement in outcomes (Olds, Kitzman, Hanks et al., 2007).

Preventive Conceptual Framework

Through careful examination of public health system changes in which a preventive approach has been effective (maternal and child health programs such as the Nurse-Family Partnership, anti-smoking campaigns, seat belt laws, water fluoridation), key concepts related to success of this approach have been identified (Miles et al., 2010). Four broad public health

concepts common to all views of a public health approach and deemed applicable to children's mental health include:

1. A population focus.
2. Promoting and preventing.
3. Determinants of health
4. Process/action steps.

Foundation of the preventive public health approach. A population focus applied to children's mental health requires emphasis on the mental health of *all* children, not merely on children with diagnosed mental, emotional or behavioral (MEB) disorders or covered by specific insurance. This broader focus permits promotion of positive mental health, prevention of mental health disorders, and early identification of mental, emotional and behavioral disorders. Since a population focus requires attention to entire populations in which wide variation of health and illness exists, it does not permit a one-size-fits-all intervention strategy. The range of potential interventions includes measures to promote positive mental health, prevent mental health disorders, provide treatment of mental health disorders and reclaim optimal health. Viewing health as more than merely the absence of disease, recognition of the individual, community or populations place on the dual continuum of mental health (optimum to minimal mental health) and mental illness (minimal mental illness to maximal mental illness) is necessary for accurate selection of appropriate interventions (Miles, et al., 2010; Authority of the Minister of National Health and Welfare, 1988). The approach is child-centered and family-driven, community and locally adapted employing cultural and linguistic competence. The approach uses scientific knowledge, both qualitative and quantitative, to drive the decision making process and operates using accountability, respect and integrity (Miles et al., 2010).

Five guiding principles facilitate adoption of the preventive conceptual framework.

These five principles are as follows:

1. A population based focus, balanced focus between children's health problems and optimizing children's positive mental health.
2. Use of collaborative effort across a broad range of formal and informal systems and sectors.
3. Viewing the development of mental health within the environmental context in which children grow.
4. Creation of environments that promote optimal mental health.
5. Adaptation of health promotion and prevention strategies to fit different settings and contexts.

The first principle necessitates a paradigm shift. Although SN predominantly provide individual focused care, their role as defined by the NASN (2008) is inclusive of system and community-level functions as well. Over the years, the view that SN's focus primarily on management of illness in individual students has evolved. The new paradigm, urges promotion of health at the individual, systems, and community-level through health promotion, prevention strategies and early intervention (Weist, 2005)

The second principle, a balanced focus between children's health problems and optimizing children's positive mental health requires assessing, intervening and ensuring children's mental health within an age related developmental framework. The view of children's mental health within a developmental framework permits optimal use of a preventive approach. This approach promotes early identification and enables implementation of early interventions appropriate for the developmental stage. Research has identified that most adult disorders begin early in life and

that symptoms for many disorders typically occur 2 to 4 years prior to a diagnosable disorder (Kessler, Berglund et al., 2005). Due to these factors, a window of opportunity exists in which prevention and remediation through health promotion, early identification and intervention is possible.

The second guiding principle thereby necessitates the third guiding principle, the use of collaborative effort across a broad range of formal and informal systems and sectors that impact children's mental health. Collaboration of SN with a variety of professionals both within and beyond the school is necessary for successful preventive approach as well as early identification and effective treatment of MEB disorders. It is imperative that SN not work in isolation but rather actively participate in collaborative teams inclusive of a wide variety of school and community-based professionals such as teachers, developmental specialists, counselors, translators, health literacy professionals, primary care providers, and social workers.

The fourth and fifth guiding principles of the public health process model address the necessity of viewing the development of mental health within the environmental context in which children grow. The fourth principle calls for greater emphasis on creating environments that promote and support optimal mental health and the development of skills that enhance resilience. The fifth guiding principle calls for adaptation of health promotion and prevention strategies to fit different settings and contexts.

Public health process and action steps. The public health process which drives the preventive conceptual framework requires a series of three action steps. The first step, assessment, necessitates collection of data to inform decisions necessary for selection of appropriate interventions. Assessment involves examination of the determinants of health and expression of these determinants as risk and / or protective factors among the individuals as well

as within the larger community or population. Determinants of health are the numerous social, economic, physical, geographic, and environmental factors which impact upon the health of individuals, a community, or specific population. Data collection is necessary for identification of the determinants of health and assessment of the use and effectiveness of interventions that have an impact on mental health (U.S. Dept. of Health and Human Services, 1999).

The second step, intervening, pertains to selection of appropriate interventions used to support optimal mental health and prevent or minimize disorders. Intervening may include referrals; implementing policies, programs, services; facilitating environmental change; education and social marketing (Miles et al., 2010). Among individuals, families, communities, and populations that are not at an optimal level of mental health due to adversity, it is necessary to promote resilience. Resilience is defined as the ability to adapt to life stressors (O'Connell et al., 2009) and the positive adaptive response to adversity that permits positive health (Miles et al., 2010).

The third step in the public health process model, ensuring, refers to measures to ensure that the interventions provided are effective and of the highest quality possible. It also includes ensuring that children and families have access to interventions and that the interventions provided are sustainable. An important component of ensuring is adequate training of professionals providing interventional services.

New models of intervening. Adoption of the preventive conceptual framework into the existing children's mental health system requires significant system changes. In October 2007, leaders from the Center for Mental Health Services (CMHS) at SAMHSA, in conjunction with the National Technical Assistance Center for Children's Mental Health at Georgetown University, articulated these necessary changes. Successful adoption of the preventive

conceptual framework into the existing children's mental health system necessitates the following:

1. Incorporation of public health concepts into the children's mental health system.
2. Greater emphasis on children's mental *health* in the public health system.
3. Increased engagement of child serving systems and sectors in the form of comprehensive and coordinated children's mental health system partnerships (Miles, et al., 2010)

Clarity and consensus is necessary to translate the preventive conceptual framework into federal policy (Blau, Huang & Mallery, 2010). Critics of the public health model raise concerns of financing this new approach in which children's mental health is no longer the responsibility of one system but rather a collaborative endeavor requiring collaboration of multiple sectors (such as education, early child care providers, juvenile justice, child welfare), disciplines, and partners (Blau et al., 2010). In addition, variation among the states related to interpretation of how to balance service delivery including prevention, early intervention, and provision of services for treatment within a public health framework exists (Cooper et al., 2008). This variation appears related to two key resource problems, limited finances and too few specialists. Two potential solutions have been offered for these problems. The first is to move prevention services to natural settings such as within homes and schools, the second is to expand school based and after school programs to promote healthy development (Stiffman et al., 2010).

Mercy and Saul (2009) have indicated that construction of the infrastructure to transfer interventions identified as effective into action must be built. This infrastructure is comprised of three interrelated systems: synthesis and translation of effective interventions into a form that is user friendly and readily accessible to practitioners; enhancement of the capacity of individuals, organizations and communities that would promote engagement in evidence based prevention

and promotion activities; and delivery of evidence based interventions at the national, state and local levels (Mercy & Saul, 2009).

Public Health Process Model as Organizational and Conceptual Framework

By linking the specific aims of the study to the public health process model, the model has provided an organizational as well as conceptual framework. The specific aims of the study were to explore SN's perceptions of factors influencing their ability to identify, refer, and provide services to students with *early* signs of mental, emotional or behavioral needs. An additional specific aim of the study was to explore SN's existing knowledge and self-identified educational needs regarding the identification, referral and provision of services to students with mental health needs. For the purposes of this study, attention was primarily on identification (assessment) and adequacy of SN knowledge (ensuring) components of the public health process model.

Identification, referral and provision are linked with the three components of the public health process: assessing, intervening and ensuring. Table 1 describes in further detail the organizational and conceptual linkage of the public health process model with the specific aims of this study.

Table 1

Organizational and Conceptual Linkage of Public Health Process Model with Specific Aims

Organizational	Specific Aim	Conceptual
<p>Assessing (Identification)</p> <p>Gathering and analyzing data to drive decisions</p>	<p>Aim #1: Describe how school nurses presently identify and make the decision to refer students in need of mental health services.</p>	<p>What skills and tools (observational, communication, screening tools) do school nurses possess and use that enables early identification of mental health needs and decision making regarding student mental health? Do school nurses identify risk and protective factors?</p>
<p>Intervening (Decision making and referral)</p> <p>Developing or selecting interventions that support optimal mental health and / or address mental health problems. Can take place at the individual, community or population (tribal, state, national) level.</p>	<p>Aim # 2: Describe the services school nurses currently provide to students with mental health needs.</p>	<p>What moves the school nurse into action? Specifically how do school nurses make referrals? To whom?</p>
<p>Ensuring (Provision)</p> <p>Making sure that intervening is done with a high level of quality and effectiveness and that people providing interventions are appropriately trained. Measurable outcomes. Ensuring that children and families have access to interventions and that they are sustainable.</p>	<p>Aim #3: Explore school nurses existing knowledge and self identified educational needs regarding identification, referral and provision of services to students with mental health needs.</p>	<p>How do school nurses promote quality, access and sustainability? What specific services do they provide once a student is identified with mental health needs? Do school nurses promote the development of protective factors at the individual, systems and community levels?</p>

Application of the Public Health Process Model to School Nursing.

Within the preventive conceptual framework the role of SN includes assessing, intervening and ensuring. Although the exact nuances of *how* SN do this are not clear, SN have since the inception of school nursing, functioned as public health nurses by employing the public health process model (NASN, 2002a). Assessment requires data collection. Methods for data collection may include SN's direct observation of students, information obtained qualitatively through interpersonal communication with students, their families, and other professionals working with students, or quantitatively through the use of preexisting screening tools. No uniform method for assessment has been determined and wide variation exists (Praeger & Zimmerman, 2009). At a broader level, SN may also have a role in the assessment of the health of the entire school and local community although wide variation is pervasive here also.

SN may intervene by making appropriate referrals both within and outside of the school and by working collaboratively with family members, school professionals, professionals in the community, and community based agencies to promote positive adaptive response. SN may also intervene by providing direct mental health services, education, and public advocacy for policy which promotes mental health. Within a preventive conceptual framework SN may ensure quality through variety of methods. These methods include: monitoring adherence and effectiveness of individual student treatment plans through case management, taking active steps to assist students and families to access services, evaluating the effectiveness of school-based and community mental health promotion and prevention programs; continuing professional education, and through inter-professional collaboration for assessment and revision of individual treatment plans and community wide promotion programs. Alternately, SN may be unable to perform functions recognized as within their scope of practice for a variety of reasons not clearly

specified. The role of a SN within the context of a preventive conceptual framework with focus on childhood developmental milestones permits an invaluable opportunity for early identification, referral, and provision of appropriate services. Unfortunately, an approach potentially used which is focused on management of disorder, infrequently promotes assessment and intervention that is inclusive of an age-related developmental preventive perspective.

Chapter Summary

Broadly defined, mental health is a state of successful performance of mental function resulting in productive activities, capacity for establishment and maintenance of fulfilling relationships with others, and the ability to cope with adversity and adapt to change (U.S. Public Health Service, 2000). Research indicates that most MEB disorders in children are not rooted in internal pathology but rather from a complex interplay among determinants of health (Adelman & Taylor, 2006). Researchers from Georgetown University Center for Child and Human Development have provided a preventive conceptual framework comprised of four major elements: core values that underlie the effort, guiding principles that steer the work, a public health process consisting of three health actions steps (assessing, intervening and ensuring), and a new model of intervening consisting of a range of interventions necessary for a comprehensive approach (Miles, et al., 2010). The third component, a public health process consisting of three action steps, has provided the organizational and conceptual framework for this study. The next chapter describes the methods used to explore SN's perceptions of factors influencing their ability to identify, refer and provide services, and utilization of the public health process.

Chapter III

Methods

Introduction

This chapter provides a detailed description of the research methods used to conduct the study. The chapter also includes a description and rationale for the use of the qualitative inquiry approach employed; explanation of study participant recruitment, inclusion and exclusion criteria and setting selection; details of data collection, management and analysis procedures; description of measures to ensure trustworthiness and reflexivity; important ethical considerations including measures to ensure protection of study participants and description of the study's limitations.

Design

The qualitative inquiry approach selected for use in this study was the focus group method. Focus groups were used to explore school nurses (SN) perceptions of factors that influence their ability to identify, refer, and provide mental health services to students with early signs of mental, emotional and behavioral (MEB) needs. They also explored SN views regarding adequacy of their knowledge (experiential and academic) to function in this role. Structured focus group questions were linked with each of the specific aims of the study.

Focus group method and rationale. Focus group method is a process of disciplined inquiry that is systematic and verifiable, seeking to provide understanding and insight (Krueger, 1998 a; Krueger & Casey, 2009). Focus groups provide an ideal approach when little is known about the topic under investigation (Rabiee, 2004). They may be used effectively for four primary purposes: exploratory, aimed at generating hypotheses; pre-scientific, to identify constructs prior to a quantitative study; quasi-scientific, as a form of qualitative research or phenomenological to probe participants' conceptions and everyday explanations (Mc Lafferty, 2004).

In this study focus groups were used to *explore* SN perceptions of the factors influencing their ability to identify, refer, and provide mental health services to children with early signs of MEB needs. SN perceptions of their existing knowledge and self identified educational needs related to this role were also explored. The investigator moderated the focus group discussions, and a Licensed Independent Clinical Social Worker (LICSW) with focus group experience assisted the investigator. The assistant operated the tape recorder, took notes including notation of participant's body language throughout the focus groups, managed environmental conditions and logistics such as lighting, refreshments, greeting participants, debriefing following focus groups and responding to unexpected interruptions (Krueger, 1998 b).

Before each focus group the moderator and assistant conducted a brief pre-session, approximately 10 to 15 minutes in length. The pre-session provided an opportunity for the moderator and assistant to confer with each other, review the purpose of the study, and determine if the focus group logistics were in place. During the pre-session the moderator and assistants thoughts and feelings were recorded in a journal. The recording of these details began what is referred to as an audit trail.

Broad criteria have been suggested for conducting effective focus group interviews (Krueger & Casey, 2009; Merton, Fiske & Kendall, 1990). Unlike a focused interview which brings together several individuals to discuss their views on some general topic, a focus group interview is confined to a specific topic area and is focused on both content of discussion as well as on the interaction within the group. An effective focus group focuses not only on what the participants say but also on the language used and the intensity of the participant's feelings expressed both verbally and nonverbally about the topic (Redmond & Curtis, 2009). Ideally, a focus group discussion should facilitate interaction between group members that stimulates verbalization of

participants deep feelings related to the topic. Effective focus group interaction provides descriptive data which is a deep, rich detailed account of both the participant's experiences rather than vague and general information (Krueger & Casey, 2009). In this study since the focus groups consisted of SN from the same school district detailed descriptions of the experiences of the group were obtained.

Sample, Criteria, and Setting

Sample. A purposive, homogeneous sample of SN from Worcester County Massachusetts School Nurse Organizations Region III, VI & VII was selected to participate in the focus groups. The use of these pre existing groups of SN from the same school district, who knew each other and shared similar characteristics (employment, education, gender, social class) was purposive. While the homogeneity among the group likely fostered trust and open expression, the diversity of the communities and schools in which the SN work provided variation in each groups experience and views. Worcester County is socioeconomically and demographically diverse, containing schools in urban, rural, and suburban areas. In addition, Worcester County is culturally diverse including cities and towns in which large numbers of students are from minority groups in which English is not the primary language.

Established criteria were used to determine the number of focus groups to be conducted. An accepted rule of thumb is to plan three or four focus groups with each type or category of individual (Krueger & Casey, 2009). Since the exploratory focus groups were intended to identify both the common views as well as the divergent views of the participants (Curtis & Redmond, 2007), the number of focus group conducted must be adequate to permit analysis and themes across groups (Krueger & Casey, 2009). Determination of the actual number of groups is dependent upon reaching saturation, defined as the point where no further new ideas are

provided through the focus groups (Krueger, 1998a). Saturation was achieved following completion of four focus groups. To ensure common themes however, a fifth focus group was conducted. The fifth focus group did not provide any new, additional themes.

The NCS-R identified that half of all lifetime cases of MEB disorder began by age 14 (Kessler & Wang, 2008). In addition, the Great Smoky Mountain Study identified that few youths entered services before five years of age or after age thirteen. (Farmer et al.,2003). Therefore, SNs which provided services to students in grades pre kindergarten to grade 12, ages 4 - 19 from five school systems were invited to participate in the focus groups. To achieve desired focus group sizes of 6 – 8 SNs, approximately 8 - 10 potential SN were contacted in each of the school districts.

The five focus groups were identified as Focus Group A, B, C, D and E. Focus Group A consisted of SN from a rural area. The second group, Focus Group B, consisted of SN working in a suburban area. The third group, Focus Group C, consisted of SN working in an urban area. Focus group D consisted of SN providing services in a school that has a school based health center (SBHC). Focus Group E was also comprised of SN working in an urban area in which a SBHC was available.

Following institutional IRB approval, the investigator made initial contact with each regional school nursing chairperson by phone to explain the purpose, aims, and procedure plans (focus groups). A follow up phone contact followed one week after the initial call. The time between the first and second call permitted the regional school nursing chairperson to discuss the proposed research with the district SN team leader and their team of SN. During the follow up telephone contact, the investigator requested the work email addresses and phone numbers of potential SN focus group participants and scheduled a time to conduct the focus groups.

Potential participants were contacted and inclusion and exclusion criteria were explained to potential participants. Two important demographic questions were asked, the number of years of school nursing experience and level of academic preparation for school nursing. In addition, the SN were asked if they had attended any educational programs related to children's mental health in the last year. Written consent forms for participation and the option to refrain from participation in the focus group was provided in a follow up email. Consent to participate in the focus groups or refusal was obtained through returned emails.

Inclusion and exclusion criteria. Although the minimum academic requirement for school nursing in Massachusetts is a BSN, variation related to academic preparation exists (Praeger & Zimmerman, 2009). Therefore all SN, both full and part time, providing direct services to students were permitted to be included in the study. SN which work with DSM diagnosed students may have enhanced or diminished opportunity to identify early signs of MEB disorders. In addition, access to mental health services may differ in schools which provide comprehensive school based health services compared to schools without these services. Therefore, the focus groups included SN providing services in school with SBHC. In summary, the inclusion and exclusion criteria were as follows:

Inclusion:

Full and part time SNs from Worcester County Massachusetts School Nurse Organization Regions III, VI and VII providing services to students in grades pre kindergarten to grade 12, including SN working in SBHC.

Exclusion:

Supervisory or managerial SN that do not provide direct services to students.

Setting. Conducting focus groups in the SN place of employment may potentially place pressure upon the SN to participate as well as provide socially desired responses (response bias) to the focus group questions (Howatson-Jones, 2007; Kahn & Mastroianni, 2001). To reduce response and sampling bias the opportunity for the focus groups to be conducted in a community setting, outside of the schools such as a private room in the local public library was provided to each group. The SN from each group selected the location for their focus group. At the start of each focus group the moderator provided an overview of the topic to the participants, explain the purpose of the study and outline ground rules such as the importance of one person speaking at a time. To enhance conceptual clarity the moderator also reviewed the definition of mental health, mental health problems and mental illness as defined by the U. S. Surgeon General (U.S. Department of Health and Human Services, 1999), emphasizing that the focus group discussions would focus on *early* identification of MEB needs. The importance of confidentiality and the voluntary nature of participation were reiterated at the start of each focus group.

Data Collection

The focus groups were 60 - 90 minutes in length and consist of approximately 8 to 10 questions. The focus group introductory statement made by the moderator as well as the questions to be used were reviewed by a nationally renowned expert in focus group method and practiced during a two day intensive focus group course. The focus groups were audio-taped using two tape recorders to ensure accurate and complete capture of the data. During the focus groups a ladder progression of conversational, clear, and succinct questions (questioning route) were used by the focus group moderator. The ladder progression of questions (Price, 2002) began with a non intrusive opening ice breaking question, followed by factual broad introductory questions used to foster group cohesion and begin discussion of the topic.

Transitional questions followed the introductory questions. The transitional questions explored the SN experiences at greater depth and prepared them for the key questions. The moderator used probes to elicit deeper responses to the questions, encouraging input from all participants, clarifying and summarizing what had been stated. Three key questions aimed to provide in-depth information required the largest amount of time, approximately 15 minutes each.

Completion of the key questions was followed by a summary by the moderator of the central ideas that emerged from the focus group discussion. The moderator concluded the summary by asking the participants if the summary was complete. The focus groups concluded with ending questions in which the moderator asked if there was anything that has been omitted and which topics discussed were of the greatest importance.

Table 2 provides the question route. The introductory questions began exploration of Specific Aim #1, how SN identified and referred students in need of mental health services. Did the SN identify early signs of MEB needs and what prompted the SN to decide to refer a student for services? The transitional questions led to more in-depth, key questions linked to Specific Aim #2. When, how and to whom did the SN make referrals and what mental health services did the SN provide? These key questions prepared the SN for yet deeper and more personal questions regarding the quality of the services and their own views of the adequacy of their experiential and academic knowledge, linked to Specific Aim #3.

Table 2

Focus Group Question Route

Question Type	Question	Purpose / Specific Aim
Introductory Factual question to promote group cohesion. Answered round robin style	<i>How do you identify students with early signs of mental health needs requiring referral?</i>	SPECIFIC AIM #1 (ASSESSING) To obtain description of nurses capability to identify and refer. To determine if school nurses are identifying mental health needs.
Transitional To promote self esteem and foster interaction. May also provide the opportunity to reflect on past experiences	<i>When do you make within school / outside the school referrals? How do other school professionals / professionals outside the school work with you? What mental health services do you provide to students?</i>	SPECIFIC AIM #2 (INTERVENING) Identify when, how, to whom do school nurses make referrals and what works effectively. To identify who takes the lead in the provision of mental health services. To identify what services are provided and if the school nurse is viewed by other professionals (both within and outside of the school) as knowledgeable.
Key Questions which drive the study	<i>How do you know when the referral was successful or unsuccessful? How do you know what will help them best? In what areas do you feel more knowledge / information/ training would be helpful to assist students coming into your office with mental health needs? Mention specific disorders Seek to identify barriers to sustainability Briefly describe any educational experiences, in-service training, and seminars if any that have been helpful to you for identifying students with mental health needs.</i>	SPECIFIC AIM #3 (ENSURING) To identify what works effectively and if the school nurses feel they have adequate knowledge (experiential and academic) to identify, refer and provide services. Probe for identification of school nurses educational needs. To obtain descriptions of areas in which school nurses lack knowledge.
Ending To bring closure to the discussion	<i>Of all the areas we have discussed which is most important? Have we missed anything?</i>	To bring closure and ensure nothing has been left out from the perspective of the participants.

Data Management

Immediately following the focus groups all audio tapes and field notes were labeled and moderator (investigator) and assistant (note taker) debriefing took place. During the debriefing field notes and personal impressions were reviewed with the intention of identifying noteworthy quotes, unexpected findings and important overarching themes and ideas. Since focus group data is the product of context dependent interaction (Lambert & Loiselle, 2007), additional information pertaining to context and non verbal communication was also discussed. Notation of noteworthy quotes, unexpected findings, important themes and ideas, contextual and nonverbal observations, personal feelings and thoughts experienced by the moderator and assistant were documented in the journal (audit trail). One back up copy of the audio tapes was made followed by transcription. All field notes, tapes and transcripts were stored in a locked fire proof safety box and kept in a locked file cabinet within an office that was also locked. Access to data was permitted only by the moderator, assistant and dissertation chair.

Data Analysis

Selection of the type and depth of analysis was determined by the purpose of the study (Krueger & Casey, 2009). The purpose of this proposed study was exploration of SN perceptions of factors that influence their ability to provide early identification, referral, and provision of mental health services to students with early signs of MEB disorders. The study also sought to explore SN views regarding self perceived adequacy of their knowledge (experiential and academic) to function in this role.

Since the number of study participants was small ($N=29$), demographic data was summarized using descriptive statistics. Careful labeling of all data gathered in the focus groups permitted examination of data for differences among the groups. In addition, by using a focus

group tracking technique described by Goodwin and Happell (2010), within group variation among the SN was possible. Within group variation related to academic preparation, number of years as a SN and student demographic variables was possible through the technique described by Goodwin and Happell. In this technique, the focus group assistant made notations of each SN name and seating arrangement. The first SN to speak received a number one, the second a number two and so on. Tracking in this way permitted tracking of the dialogue in the notes and accurate identification of which SN made each comment.

A continuum, in terms of time investment and rigor, exists among focus group data collection and analysis techniques. Using the systematic method of focus group process previously described, four basic techniques of data analysis are possible. Verbatim transcribed audio tapes combined with notes taken by the assistant are the most time intensive but provides the greatest rigor (Krueger, 1998 a). An alternate method is tape based analysis. In this method a shortened, abridged transcript is prepared after listening to the audio tape. Transcription of the ice breaking and introductory questions, the moderators' introduction, instructions provided at the start of the focus groups and comments that do not directly relate to the purpose of the study are omitted. Less rigorous is note based and memory based analysis. Field note analysis uses notes taken by the assistant during the focus group, debriefing notes and summary comments made at the end of the focus groups. In this method the audio tapes are used only to verify specific quotes. Memory based analysis is the least rigorous of the data analysis methods. In this method the moderator simply presents an oral report to relevant stakeholders immediately following the focus groups with consultation to notes taken during the focus group to prompt recall (Curtis & Redmond, 2007; Krueger, 1998 a). In this study note based analysis was used for identification of central themes and categories. Examination of the content, frequency,

specificity and intensity of the SN responses in relation to the questions asked and the specific aim being explored was possible through tape based analysis supplementary to the note based analysis. Careful listening to audio tapes to supplement the notes, inserting additional notation when indicated, increased the specificity of the notes. Careful review of the audio tapes also provided access to important statements (quotes) made by the SN.

Throughout the data analysis process findings were reviewed with the focus group assistant to confirm findings. Following completion of data analysis SN focus group participants were contacted by the focus group moderator to any clarify demographic information not clearly specified upon enrollment and to confirm findings of data analysis. In two instances for example, SN were contacted by phone to clarify demographic information. In both of these instances the SN indicted RN but did not specify their academic preparation. Upon completion of data analysis the focus group moderator also contacted one or two SN from each focus group by phone to discuss the results of data analysis. There was 100% consensus among the SN contacted, the moderator and the focus group assistant of four themes and the collective subtheme identified through data analysis.

Although experts indicate that focus group analysis should be systematic, sequential, verifiable and continuous, the process is not linear (Krueger & Casey, 2009; Rabiee, 2004). An essential first step is the establishment of a clearly documented and easily understood procedure for data collection and analysis, one that is reproducible by other investigators and therefore verifiable. Unlike quantitative research, this process is continuous, beginning during data collection through careful moderation, notation and recording of discussion, and close observation of the participants' interactions, verbal, and nonverbal responses. Initial immersion in the details and experience of the focus group as a whole for identification of overarching

themes is sought prior to breaking the data into analysis components (Sandelowski, 1995).

Various methods are available for breaking the data into smaller components for analysis. For this study the method selected was the classical analysis strategy (Krueger & Casey, 2009), also called the long table approach. This method is ideal for both expert and beginner investigators using focus group method because it is organized, easy to use and systematic. The steps are as follows:

1. Number each line of all focus group notes manually

(Electronic: Microsoft Word or computer software program).

2. Make two hard copies, one to cut up, one to keep intact.

Print the notes from each focus group on different color paper.

(Electronic: Save an unaltered version, use varying font colors for each of the focus groups).

3. Arrange the cut up working notes into sequential order.

4. On a long table place large flip chart pages each with a focus group question written on the top.

5. Categorize the data. To categorize answer the following questions:

Did the participant answer the question that was asked? If yes go to question 3. If no set aside the comment.

Does the comment answer a different question contained in the focus group? If yes go to question 3, if no set aside.

Does the comment say something important about a question? If yes tape it to the appropriate question on the flip chart. If no set aside.

Is it like something that has been previously stated? If yes begin grouping the quotes. If no, start a separate pile.

The categorization process required constant comparison to audiotapes, decision making, and sorting. Once this process was completed the final stage of analysis, interpretation and reporting, was possible. There are seven established criteria for interpreting the coded data (Krueger 1994; Rabiee, 2004). These criteria are:

- a. Words – consider the actual words the participants used and the subjective meaning the words selected may hold for them.
 - b. Context – the wording of the questions and comments of others in the group influences the context with which the participants make their comments
 - c. Internal consistency – note any changes in the individual participants views and also within the group as a whole.
 - d. Frequency and extensiveness of comments – how often is the comment made and how many of the focus group participants express the same or similar view. How are shared views alike or different?
 - e. Specificity of comments - comments that are specifically related to the participants personal experiences are of greater importance than vague references.
 - f. Intensity of comments – consideration of the depth of feeling in which the comment is expressed must be made.
 - g. Big ideas - what are the larger concepts that emerge within and across the groups.
6. Interpretation. What were the most important themes or ideas discussed? Be certain to incorporate verbal as well as non verbal cues recorded as notations by the assistant into the final interpretation. Be certain to check with focus group participants regarding the final

interpretation (member checks).

7. Reporting. There are five principles of reporting (Krueger & Casey, 2009)

- a. Know the point and get to it quickly.
- b. Clear, effective writing takes time.
- c. Provide enlightenment. If possible identify new valuable information and articulate it clearly.
- d. Involve end users throughout the study.
- e. Use multiple reporting strategies.

Trustworthiness

Credibility, transferability, dependability, and confirmability are essential components of the trustworthiness of a qualitative study. Numerous specific measures have been integrated into the planning and implementation of the study to enhance trustworthiness. These measures began early in the dissertation planning process and were carried throughout the process of conducting the study. Measures helpful in enhancing the trustworthiness of the study included peer scrutiny of the research process; frequent debriefing sessions between the investigator, supervising faculty and assistant; member checks; careful reporting of the precise details of how the study was conducted; use of a reflexive journal to bracket the investigators preconceived ideas, and accurate presentation of data analysis results.

Credibility is one of the most important factors in establishing the trustworthiness of a study (Lincoln & Guba, 1985). Analogous to internal validity in a quantitative study, credibility refers to whether the findings are congruent with reality. Beginning during the very early stages of dissertation proposal development and continuing until completion of study, scrutiny by peers (including school nurse leaders and School Health Program Coordinator at the Department of

Public Health), supervising dissertation committee members and faculty was essential. During the study debriefing sessions between the investigator, supervising dissertation committee members and the focus group assistant was also used to enhance credibility. Credibility was also enhanced through the use of member checks. By conferring (or checking) with participants of the focus groups at the conclusion of the moderator focus group summary as well as at the conclusion of data analysis the credibility of the study was enhanced.

In a quantitative study, external validity refers to the extent to which the findings of one study may be applied or generalized to other situations or larger groups with similar characteristics. Since the findings of a qualitative study are specific to the unique individuals and environments in which the study was conducted, such a generalization of qualitative study findings is not possible. Instead, details of the study may provide background information and data to which comparisons may be made by subsequent investigators conducting a study with similar individuals and comparable environments. In this way qualitative study procedures and study results may be considered transferable rather than generalizable. Transferability is enhanced through transparency in all aspects of the study. Transparency was possible in this study by providing specific details, as reported in this chapter, of SN recruitment, inclusion and exclusion criteria and setting selection; the characteristics and number of SN in the focus groups; the number and length of the focus groups and careful documentation of details of data collection, management, and analysis procedures.

Transferability is closely linked with two other essential components of trustworthiness, dependability and confirmability. Dependability refers to the presence of in-depth methodological description necessary for the study to be repeated. To enhance dependability and confirmability, careful description of the study's design and implementation, provision of

specific operational details of data collection and analysis as previously described and reflective appraisal throughout the process was necessary. Confirmability necessitates that steps be taken to ensure to the greatest extent possible that the study's findings are the result of the experiences and ideas of the focus groups participants rather than the characteristics and preferences of the investigator. Confirmability, which is the culmination of audit ability, applicability, and truth value and is enhanced through the use of an audit trail (Ryan-Nicholls & Will, 2009). In this study the audit trail included all notes taken during the focus groups, the study guide and reflexive journal in which the investigators predisposing notions, prejudices and observations were recorded.

Reflexivity

Reflexivity is defined as “self critical reflection about one’s own biases, preferences, and preconceptions” (Polit & Beck, 2009, p.764). It has also been defined as “showing awareness of the importance of the research on the researcher and vice versa; recognizing how values, assumptions and presence of the researcher may impact on data” (Clarke, 2006, p 20). In qualitative research the primary instrument used is the researcher or investigator. As a public health nurse with over 30 years experience working in communities adversely impacted by mental health needs and high rates of academic failure, I have worked closely with SN for many years. My preexisting experiences, values and beliefs had the potential to bias study results. It was essential that I remained cognizant at all times of these factors and their potential to bias the study. Reflexivity allowed for open acknowledgement of the detrimental nature of preexisting conceptions and necessitated frequent debriefing sessions between the investigator and advisors. The use of a reflexive journal to bracket the investigators preconceived ideas, peer scrutiny of the study’s process and frequent member checks add credibility to the study’s findings. Use of a

reflexive journal began at the time of the first contact of the investigator with the assistant, prior to conducting the focus groups and continued until completion of each of the focus groups and analysis of data.

Ethical Considerations and Protection of Participants

Careful consideration of potential ethical issues throughout the proposal development and study implementation process was essential. Awareness of the ethical principles of autonomy, beneficence and justice must guide the investigator/participant relationship, proposal development and study implementation and investigator subjective interpretations of data (Orb, Eisenhuaser & Wyanden, 2000). Assurance of participant confidentiality and measures to ensure that participants did not feel coerced in any way to participate was of the utmost importance. Careful consideration was made of potential bias due to potential power differential in the investigator and participant relationship (Aita & Richer, 2005). Specific measures to assure confidentiality and prevent coercion were integrated into various stages of the study. These measures included the use of written informed consent, assurance by the investigator at critical times (invitation to participate, beginning of focus group, during the focus group) that participation was not mandatory and prudent selection of the location in which the focus groups were conducted.

Chapter Summary

This chapter provided a detailed description of each step of the study. It included a thorough description of focus group method and the rationale for the selection of this type of qualitative approach. Precise details of SN recruitment, inclusion and exclusion criteria, and setting selection as well as details of data collection, management and analysis have been provided. Description of measures used to ensure trustworthiness and reflexivity have also been provided.

The chapter concludes with an explanation of important ethical considerations and the specific measures used during implementation of the study to ensure protection of study participants.

The study provided the opportunity for exploration of SN perceptions related to identification, referral, and provision of services to students with early signs of MEB needs. In addition, it is the first known study to explore SN views of adequacy of knowledge (experiential and academic) necessary to provide competent mental health services.

Chapter IV

Results

A qualitative descriptive approach was used in this study. School nurses' (SN's) descriptions of their experiences in the identification, referral, and provision of mental health services to students with early signs of mental, emotional, and behavioral (MEB) disorders were explored through focus group method. In addition, SN's academic and experiential knowledge related to the role of SN caring for students with MEB needs was also discussed. Four themes emerged through analysis of focus group data: *Frequent flyers*: student visits to SN offices, the observations that alert SN to potential MEB needs; *Digging to get the whole picture*: the process SN frequently used to collect information necessary to confirm MEB needs; *Road to referral*: the resources used and barriers encountered within the referral process; and *Safety zone*: the important role SN play in the provision of services to students with early signs of MEB needs. Within the provision of services was a collective subtheme across all five focus groups: *What we need to better help our kids*. In this category SN identified their educational limitations and learning needs, as well as potential strategies to improve provision of services for this population of students. Following is a summary of the demographic data collected and a rich description with quotes and illustrations to support each theme and subtheme.

Focus Group Participants

A purposive, homogeneous sample of 29 SN from Worcester County Massachusetts School Nurse Organizations was selected to participate in the focus groups. Five focus groups were formed from preexisting groups of SN from the same school district. The SN in each group knew each other and shared similar characteristics (employment in same school district, education, gender, social class). Despite similarities, divergent views were present; formed by

each SN's unique experience as a SN in her specific school. The exploratory focus groups identified common and divergent views of the SN within and across groups (Curtis & Redmond, 2007). Since the number of focus groups conducted must be adequate to permit analysis of themes within and across groups (Krueger & Casey, 2009), a total of five focus groups were conducted to reach data saturation. In this study, saturation was achieved following completion of four focus groups. To ensure common themes however, a fifth focus group was conducted. The fifth focus group did not provide any new, additional themes.

Important information related to school community demographics in which the SN were employed was collected. This information included the percentage of students in which English was not the primary language, percentage of students with limited English proficiency, the percentage of students receiving special education services, and socioeconomic status measured by the number designated by the Massachusetts Department of Elementary and Secondary Education as low income, receiving free or reduced school lunch. Following is a brief description of important school community demographics related to each group. A detailed description has not been provided in order to preserve the confidentiality of focus group geographic locations. Focus Group A consisted of SN from a predominantly rural area. This group had the lowest percentage of students in which English was not the primary language (approximately 0.5%). In Group A the percentage of students receiving special education services was approximately 15%. Focus Group B, consisted of SN working in a suburban community, had the lowest percentage of low income students (13%) and was third among the groups for the percentage of students in which English was not the primary language (17%). Interestingly, while Groups B (suburban area) and C (an urban area) were nearly equal in the percentage of students in which English was not the primary language (Group B and Group C

both approximately 17%), there were marked differences among the groups related to income. Among students from Group B, only 13% were designated as low income whereas students from Group C 44% were identified as low income. Groups C and E, both in urban areas, served the highest number of low income students (44% and 70%) and the highest number of students in which English was not their primary language (18% and 43%). Focus Group D consisted of SN which provided services in a high school which has a School Based Health Center. SN in Group E were from a large urban school district in which approximately 21% of the students received special education services.

The demographic data related to the level of SN experience and educational preparation has also been summarized using descriptive statistics. All the SN were Caucasian females. The group mean number of years of school nursing experience was 13.3 years with a range from 6 to 26 years. The educational background of the SN who participated in the study was as follows: Diploma ($n=3$; 10.3%), ADN ($n=2$; 6.9%), BSN ($n=14$; 48.2%), RN with BS degree in discipline other than nursing ($n=1$; 3.4%), MSN ($n=6$; 20.6%), RN with MS in an area outside of nursing ($n=3$; 10.3%).

Findings

Frequent flyers: student visits and other observations that alert SN to the MEB needs of students. There was 100% agreement among all the SN that the frequency of visits to the SN office was the leading indicator that a student may be experiencing MEB needs that require services. The SN described the observations that alert them to early potential indicators of MEB needs especially among students they described as “frequent flyers.” In each of the focus groups these students were described as students who make frequent visits to the SN reporting vague, variable and extremely generalized physical symptoms. “Frequent flyers” were described by the

SN to present with physical complaints that were frequently vague and generalized. The most commonly reported somatic complaints among these students were stomach pains, nausea, headaches and crying; however many of the SN indicated that the students somatic complaints changed frequently. One SN's description of the frequency of "frequent flyers" visits to the SN office was as follows: "I don't think there's a certain number but definitely we see the child repeatedly, every day or once a week or at the same time of day with vague complaints, stomachache, headache, avoidant behavior." All the SN indicated that they begin to consider underlying MEB needs when a student reports with vague, variable and generalized symptoms more than two or three times in close succession. They also stated that SN advisors at the Department of Public Health have suggested that SN consider more than six visits per year in which the student reports vague, variable and generalized symptoms as a red flag potentially indicative of underlying MEB needs.

The SN reported various observations they make while interacting with students, particularly "frequent flyers," that cue them to the potential of underlying MEB needs. The students affect and lack of eye contact during their visit to the SN were reported as potentially indicative of possible underlying MEB needs. School absence and declining academic achievement in students previously performing within the norm were also cited as potential indicators of early signs of MEB needs. Many of the SN stated that classroom teachers frequently shared with them the very first indications that "something is not quite right" with a student and that classroom teachers sometimes send student to the SN office.

The SN also described observations of behavioral patterns among students they described as "frequent flyers." Pattern recognition was described by the most experienced or senior SN and took time to develop through many months of interactions with the students. One SN stated:

You get a pattern. You get a child that comes in a couple of times a certain time of day. He is coming for things that are unrelated to each other and at some point in the level of trust with the child you may say... okay what is it you really need help with?

Digging to get the whole picture: gathering additional information. Once a child was identified through frequent visits to the SN office and as having possible MEB needs, the SN described “digging” for more information to obtain a holistic picture of the situation. Digging required further child and family assessment and relied heavily on effective communication to gather additional information. They described establishing verbal communication with the student and their parents. Second, they described working collaboratively with classroom teachers and other school professionals to determine what was going on with the child. Their goal was to provide case management services necessary to link the student with services whenever possible. “We all play an intricate part to make sure that things are followed up on and you have to do that. It’s part of nursing.”

The SN explained the importance of SN experience, relationships with students and their families, and the ability to identify behavior that is outside the norm. The SN indicated that interpersonal communication with students and their families over time was most closely linked with their ability to identify MEB needs. The SN described the importance of promoting an environment in which parents feel comfortable to express concerns when they observe problematic behaviors in their child. They also described the importance of their role and the methods used to assist parents to accurately identify and address MEB needs in a timely manner. The discussion and tone was serious and sincere when one of the SN stated “they [parents] need to understand that this is a very critical time in the child’s life...we are the parents’ eyes and ears in the school.” This statement received unanimous affirmation. Another SN stated “I have

parents actually relieved when I call and tell them what I am observing.” Many of the SN described their initial role as helping parents to acknowledge that there is a problem. Once acknowledged, many of the SN indicated that they believe that they enabled parents to reach out for assistance by facilitating student and family engagement through establishment of communication with school and community-based professionals.

The SN expressed concerns related to their observations of very young students coming to their office and earlier age of onset of problematic behaviors. There was agreement among the SN that MEB needs among students, including those as young as preschool and kindergarten age, was increasing in frequency and severity. Several SN explained the importance of pre-kindergarten interviews with parents to lay the ground work for the early establishment of parent and SN communication. The pre-kindergarten interview provided an opportunity for early identification of MEB needs. The SN explained that the *Getting to Know Your Child* form used in their schools has been extremely helpful in obtaining information from parents about their child’s learning style and other specific details that potentially identify early signs of MEB needs. Several SN also reported using the *Signs of Suicide* questionnaire and *Guidelines for Adolescent Preventive Services* (GAPS) form to assess older students. *Signs of Suicide* is a national suicide prevention program available through Screening for Mental Health Inc. (www.stopasuicide.org) designed for middle and high school students. The goal of the program is early identification of depression and suicidal ideation through ACT technique (Acknowledge, Care, Tell). The AMA's *Guidelines for Adolescent Preventive Services* (GAPS) is a comprehensive set of recommendations that provides a framework for preventive health services. The GAPS recommendations were designed to be delivered ideally as a preventive services package during annual health visits between the ages of 11-21 (Elster & Kuznets, 1994; NREPP,

2012). During focus group discussions many of the SN explained that identifying MEB needs through routine school physical examinations by the student's primary care provider or school based clinician was not effective in identifying MEB needs. Several SN stated that the physical examination at grade four for example, does not obtain adequate information related to MEB health.

The SN also described the importance of intuition for early identification of MEB needs. When describing the use of intuition one SN stated: "In elementary school you see children from one year to the next and sometimes it isn't anything they say or do, you just have that instinct that something is up but you can't put your finger on it." Another SN said, "I have been a school nurse for 40 years and you get a gut feeling."

Across focus groups the SN indicated that when parental consent had been obtained, and there was an opportunity for school professionals to meet as a team, important details came together "like pieces of a puzzle." The SN described the task of gathering and putting together pieces of information; from the student, parent, teachers, school administrators, and mental health clinicians. This task was described as time consuming, requiring "digging" to get a clear picture of the students needs. Frequently SNs encountered difficulty reaching parents to obtain consent. Once parental consent had been obtained, the process of obtaining additional information and establishing communication with mental health service providers was described as extremely time consuming.

The labor intensive work of gathering information and putting the pieces together was described by the SN as "school scene investigation." The SN capability to put together the pieces of the puzzle was reported to be enhanced when the SN were able to observe students in natural environments such as the cafeteria, hallways, recess or class, or make a home visit as part

of a multidisciplinary team. Some SN reported being allowed to make home visits, providing a wonderful lens of the child's family life. They discussed how important it would be to add that assessment strategy to their "digging" in the future. Gathering all of the necessary information was described as challenging due to the high volume of students they see each day in their offices. Some of the SN reported seeing 40-100 students each day. The SN emphasized the importance of a collaborative team effort to prevent students from "falling through the cracks" (failure to identify students in need of services).

Road to referrals: resources and barriers. Three factors related to the SN's ability to access follow-up services for students with MEB included: (a) student and parental engagement, (b) leadership within the schools; and (c) availability of services. Variation existed in SN reports of how they referred students for mental health services. In each of the focus groups the SN stated that communication with the student, parents, teachers, and school and community-based mental health clinicians' played a critical role in ensuring that referral and follow-up was appropriate. An appropriate referral was described as one in which there was mutual understanding of the MEB need the student was experiencing, the student and family were actively engaged in decision making, capable of following up on the referral plan. The SN provided detailed descriptions of various barriers that prevented the initiation and follow up of appropriate referrals. These barriers to referral were reported to occur at individual, family, system and/or community levels.

Individual level. Time constraints, lack of privacy, difficulty establishing effective communication and lack of clarity of the role of the SN once the student's MEB needs were identified were reported as barriers to initiating the referral process. The SN explained that the high volume of student visits to their offices sometimes prevented them from having adequate

time to comprehensively discern what factors underlie the student's visit, determine next steps, and initiate the referral process. The SN expressed concerns that the time available to get to know each student and establish communication with the student and family was too brief. They voiced concerns related to lack of privacy, stating that privacy was necessary for students and their families to feel comfortable to disclose MEB needs.

Difficulty establishing open communication related to developmental stages, particularly at the two extremes of student ages (preschool or kindergarten and high school), was also reported as a barrier to identifying appropriate referral plans. In young students, the detrimental effect of inadequate time was reported to be compounded by the student's difficulty articulating MEB needs. One SN working at the preschool and kindergarten level stated "at my level it is very difficult to get them diagnosed and to counseling. It is really hard for parents to hear they have potentially something wrong." In older students other factors such as peer pressure, fear of shaming their families, and difficulty communicating with adults were reported to hinder identification of MEB needs, discussion of steps to notify parents, and initiation of the referral process. It was also explained that once a child reached the late middle and early high school years (early teen years) it was more difficult to establish a relationship in which the child felt comfortable to disclose MEB needs.

Many of the SN identified lack of clarity regarding what mental health services SN should provide for students with early indications of MEB needs. Regardless of the lack of clarity, the SN indicated that students frequently came to their offices with MEB needs. Once identified, the SN reported that they felt they are in a position in which they must contact the student's parents and provide follow up.

Family level. The SN described the multiple stressors families face and how these stressors may sometimes be contributing factors linked to student MEB needs as well as barriers to the referral process. Difficulty establishing effective communication with parents, disclosure barriers related to stigma (trans-generational familial MEB needs and undocumented immigration status), barriers to accessing follow up (transportation needs, concerns related to missing work to bring a child for follow up, financial concerns) were all identified as barriers to the referral process at the family level.

The SN described the importance of open communication with the students' parents to obtain consent for referrals. However at a deeper level, communication with parents was also described by SN as necessary to obtain a holistic view of the student and family, and identify a referral plan that the family would be capable of following up on. The identification of student and family needs and stressors, as well as strengths and coping skills, was described as necessary to identify strategies and pathways for appropriate referrals. The need for a holistic view of the student and family was also articulated when the SN described the distinct differences between their role and that of other school based mental health providers regarding the referral process. The SN explained that the referral process used by other school professionals focused on the provision of direct services to individual students. The role of the school psychologist, for example, was described as primarily providing testing for individual students. Congruent with the positions of National League of Nursing (NLN) and the American Association of Colleges of Nursing (AACN), as endorsed by the American Academy of Pediatrics (AAP), the SN described their scope of practice as inclusive of the entire school community (students, parents and entire school staff). One SN stated, "this is my practice and my patients. You treat the whole family many times." Focus group discussions identified that the broad scope of practice used by the SN

was viewed as essential to facilitate positive change once a student was identified as having MEB needs. In addition, according to the SN the other mental health service providers do not provide the open door, safe haven provided by SN in their offices. The SN stated that students must sign up to see adjustment counselors and that frequently they must book appointments two to three days in advance. The ability for students and their parents to access SN without an appointment enables the SN to provide immediate intervention by initiating the referral process in collaboration with other professionals, once parental consent and additional information has been obtained.

Variation in levels of communication and empathy for parents was evident during focus group discussions. Several SN expressed frustration in establishing communication with parents. Several SN debated which methods were most effective in reaching parents (telephone, email or texting via cell phones) and decided that SN need to update their approach with email and texting replacing traditional phone calling. One SN started: “It frustrates me sometimes wondering if parents are paying attention to mental health things and that could be due to so many things. There are so many things parents have to face every day.” The importance of parental follow through once the referral has been made was described. For instance, the SN explained that frequently the parent does not follow up by attending appointments once referrals have been made. “It’s hard to help families when sometimes families can’t help themselves. That is where we are stuck sometimes, the families due to a lot of complexities, can’t really follow the recommendations.”

The SN described the many stressors that students and their families face. Most of the SN, for example, agreed that the grim economy has had a detrimental effect on families. Several SN explained that many students spend a lot of time alone at home after school as both parents work.

Unsupervised after school hours may result in MEB needs not identified by the parents. Other families may struggle with unemployment, depression or a family history of MEB needs.

Several SN explained that there may be a variety of factors that prevent parental follow through. The parents may be working 40 – 60 hours a week. “They may want to bring their child for help but may get punished or lose their job if they take time off to take the kid to the visit.” “How many doctors are open at eight o’clock or on the weekend?”

Discussions explored the distinction between failure of parents to recognize signs and symptoms of MEB needs in their child, and the failure to report and communicate observed MEB needs to school professionals. Both of these were reported to create barriers to referrals, each requiring a different interventional approach by the SN. The underlying factors that prevent disclosure were probed during focus group discussions. “There are a lot of parents that don’t disclose. There is a stigma about letting the school nurse know. Stigma in getting written reports back, parents sometimes black lines out.” “I know there are privacy issues but we need to work more closely with primary care providers and make it less of a stigma to say my child has mental, emotional or behavioral problems.”

The SN indicated that some parents may feel comfortable to disclose problematic behaviors they observe in their child or a family history of MEB disorders within an established relationship between the SN, student and family. SN explained that frequently parents of young children with MEB needs fear their child will be labeled, and feel overwhelmed when considering the possibility that their child may potentially face a life time of issues. The SN reported that this barrier was most evident when there was a family history of MEB disorders. The SN reported that in many instances denial and difficulty identifying and seeking treatment for MEB needs may persist into later years. One SN stated:

They can't cope, they have no skills. They don't know how to handle stress, just everyday situations that are going to continue to happen through high school. How can I better prepare them? Frequently we're seeing the children of parents who have illnesses or issues...they are just different generations.

The SN reported additional difficulties establishing communication with students and their families in which English was not the primary language. Some parents in these families experienced difficulty communicating to the SN behaviors they observed in their child potentially indicative of MEB needs due to language as well as other barriers. It was reported that parents of students in which English was not the primary language feared interaction with school authorities. This was reported to be increasingly problematic in undocumented families with children in schools. One SN with maternal and child health home visitation experience described the importance of interpersonal relationships with the family and the ability to communicate as essential for making referrals stated:

It's tough to get the parents on board because we have this adversarial relationship. I came from doing pediatric home visits with a home health agency to school nursing. All of a sudden, as a SN, I'm the enemy because the SN can file. If the child is absent seven or more times the school nurse sends a note threatening to take them to court. Once someone has had that note [notification from school system to parent of truancy] they get very defensive and you lose the ability to establish a relationship.

System level. At this level when it comes to the referral process, inclusion of SN in academic and school-based mental health teams appeared to be highly variable from school to school even within the same district. While some SN indicated that they were included in Individualized Educational Program (IEP) meetings, 504 Student Review Teams and mental

health teams, others indicated that they were excluded. The SN described exclusion as a clear barrier in their ability to refer students with MEB needs. Academic decline may precede identification of MEB needs yet variability was reported to exist in whether SN were permitted to see the students' academic record and discuss with teachers the students' academic progress in relation to MEB needs and the need for referrals. Since physical and mental health are frequently interrelated, failure to utilize SN knowledge and skills by excluding them in IEP meetings, 504 Student Review Teams and mental health teams was described by the SN as potentially detrimental to students' overall health. Most of the SN described not being informed or requested to provide important information that may impact access to resources needed for the students' health. The SN described for example that they are the only health care professionals within the schools with the educational background to educate students and parents about medications and to assess for medication side effects; particularly those that may impair concentration and effect the students' ability to learn. Despite this fact, numerous statements were made indicating that SN were not consulted regarding important information related to student medications. "You can kind of get a better picture of what is going on when the script comes to you as opposed to information." "The amount of young children on meds [referring to medications for MEB disorders] is growing. I have first-graders on medications and even then they don't have to tell us. Now there are long acting medications." "Teachers often call up and say I don't think the child has had his meds today but I can't tell....can you?"

Exclusion from providing assistance in emergency situations and participation in school crisis and reentry planning following psychiatric admissions was also described as especially troublesome by the SN. Many of the SN felt they were frequently included as "an afterthought" or were "overstepped" and expressed feelings of frustration, anger, and marginalization. A SN

with psychiatric nursing experience and certification in geriatric psychiatric nursing described how she felt “overstepped” when asked how other school professionals work with them. “There have been kids that have had pretty long mental health admissions I didn’t even know about till they came back.” Several SN referred to themselves as the “ghost busters” described being called upon to assist administrators and teachers when there was a “melt down” during school time in which a student lost control over his or her behavior. Unfortunately, these SN had been excluded from information prior to the emergency. A SN working in a SBHC stated:

The nurses at school are at the bottom and it really should be the opposite. I feel we advocate very strongly. There was no reason why I couldn’t have gone to the meeting or I am asked the minute before. I asked why aren’t the nurses at this meeting and then they will call. We are an afterthought.

There were several instances of SN reporting that they felt restricted to the SN office. In one instance a SN felt she was expected to remain in her office during the school open house, preventing her from interacting with students, parents, and teachers. The SN described feelings of isolation and marginalization stating that no one came to her office during open house. In a second example of feeling isolated and limited in the SN role, the school staff called ambulances for two students experiencing acute mental health crises. The SN felt she should have been contacted immediately and stated:

I should be consulted when a child is restrained but I cannot get out of my office! What we are supposed to do and really do are two different things. We are not set up to do psychological counseling, but we can do other roles. We need to be consulted regarding the medication plan. I feel strongly that in the event of an emergency there’s a 911 not just an ambulance and we (SN) should be called. It depends upon the administrators. It

varies from school to school.

Most of the SN attributed each school principal's perceived role of the SN as the major determinant of SN inclusion in the referral process. However, discussions also identified that variability in SN inclusion may also be related to role ambiguity, SN time constraints, issues related to confidentiality, and lack of uniformity in screening and referral methods.

Role ambiguity. The role ambiguity described by the SN appeared to be linked with communication barriers. One SN specifically stated when describing her role identifying, referring, and providing services to students that come to her office with MEB needs, "I don't think anyone knows our role." Many SN described communication as "siloes and broken." One stated:

I get called in if there's an issue with vision, hearing or medical problems. Rarely do I hear anything about mental health. Usually it's the psychologist that has that information and come to think about it, it's not really shared with the nurse or the teachers.

The SN explained that school adjustment counselors and psychologists may have details that are helpful in developing a plan of care but that they frequently don't share information unless the SN seeks it. In addition, since SN feel they are frequently excluded from IEP, 504 and mental health teams not all SN know the school counselors, making it more difficult for SN to refer to counselors and visa versa. Several SN indicated that unfamiliarity with the school counselors reduced their confidence that the school counselor will meet the MEB needs of the students they see in their offices. "We have to figure out how to improve communication, it's the key to helping the family."

Time constraints. The SN described the high volume of students they see in their offices each day and their inability to get out of their offices to observe students in naturalistic

environments. The SN explained that their visibility and functioning outside the SN office was closely related to their scope of practice which ideally is inclusive of individual, family, system, and community levels. Wide variability in SN ability to observe students and work with families beyond their office such as in the student's classroom or when indicated by making home visits was reported. The perception by the school principal and other school professionals that the role of the SN is solely the management of medical problems in the SN office combined with time constraints markedly diminishes SN ability to interact with families, the system, and the community. Interaction at each of these levels was described as necessary to make referrals and to identify appropriate follow up. One SN described making home visits as follows: "We went in a cruiser to pick the child up. We've done a lot of going out... myself or the school psychologist, or both." Other SN in this group described their role at the community level as seeking to effect change in health policy, and advocating for enhanced services by submitting articles to the community newspaper. However, the majority of SN indicated that they do not directly observe students in the school or classroom environment, or make home visits because they are too busy or are not permitted.

Issues related to confidentiality. Although the SN expressed a desire to open the lines of communication between SN, administrators and school-based mental health professionals, bi-directional barriers frequently related to maintaining student confidentiality were described. Some SN expressed deep concerns related to confidentiality not only when communicating with other school-based and community professionals, but even when discussing a student's status with other SN as the student transitions to higher grades. They also made statements indicative of conflicted feelings about barriers and resources used during students' transition from one grade to another. Within the same school district students transition from early elementary

school, to middle school, and then to high school, with different SN at each level. SN described the use of the school health record that follows the student from grade to grade as helpful, particularly for students experiencing difficulties. Many SN also expressed concerns about the school health record and “reporting off” the student’s physical, mental, emotional, and behavioral health needs issues from one SN to the next. One SN for example stated “a lot of time I don’t like learning about them [students] from the SN [previous school] before they come. I want them to come to us with a fresh start.” There was general agreement among SN with this statement. In addition, despite the fact that SN emphasized the importance of communication with teachers, many of the SN also expressed concern about sharing confidential information with teachers: “I have mixed feelings about what the teachers need to know because I don’t want to color how they treat the child.” All SN indicated that parental consent is always required.

Lack of uniformity. The referral process and access to necessary services was reported to be impeded by lack of uniformity in how MEB needs are assessed and reported. Uniform use of available screening and assessment tools such as the *Signs of Suicide Questionnaire*, *Guidelines for Adolescent Preventive Services* (GAPS) form and others was described as very limited. None of the SN reported district-wide, SN implemented, systematic use of mental health screening or assessment tools.

The management of emergency situations was also described as lacking uniformity despite existing policies, possibly related to a shortage of mental health professionals in the schools. The situation described by one SN that assisted two students requiring emergency transportation for acute mental health crisis the same day as her focus group explained that psychological evaluations and psychologist support have recently been cut. The situation she described demonstrated a dire need for clarification of emergency plans (whether the student should be

transported by ambulance or escorted by police), the importance of restraint training in schools and clarification of guidelines for interventions during an acute situation related to MEB needs. In another focus group a SN clearly articulated the need for clarification of guidelines and urged increased uniformity stating:

I think just getting consistency is huge, policy and procedures in place from building to building. There are totally different ways of handling things. A lot of times you don't figure out there's a problem until a huge problem happens.

Community level. The critical step of referral making to access community-based follow up care was reported to be difficult. The SN described referral process barriers communicating with parents and school mental health professionals, and with primary care providers and mental health specialists in the community. Communication during the referral process with community based psychiatrists and pediatricians were described by SN as “frequently difficult.” Many SN stated that it is slightly less difficult to communicate with pediatricians or other primary care providers than with psychiatrists. Although the providers may sign orders, they infrequently return calls even though parental consent has been provided and the family is requesting SN assistance navigating the mental health care system. Some SN described referral difficulties they encountered that included “backlogged” adjustment counselors within the schools, and appointments with pediatricians and other community based providers taking referrals “months out.” The ability to access follow up services following referral was described as “challenging” even in schools that have a nurse practitioner and a school-based health center (SBHC). The nurse practitioner role was described as serving as an adjunct to the SN's role, sometimes facilitating access to services more quickly. Thus, the nurse practitioner takes on a leadership

role along with the Director of Guidance to close communication and referral follow-up gaps.

One nurse practitioner described how she closes the gap in the provision of services:

I will put someone on a medication when indicated if I have discussed with my supervising physician to bridge the gap till they're seen by psychiatry. We call the parent first and then ask if we can link with the rest of the team. They may decide to go to primary care or the parent may not agree. Sometimes we find out that the child is already receiving counseling services but we were not aware. Sometimes the family does not want it known. Sometimes we have difficulty contacting the guidance counselor but if that turns out to be the case we can go to the Director of Guidance.

Access to and availability of school and community-based services appeared to vary widely from district to district and even from school to school among schools in the same district. For instance, in rural communities transportation was reported to be a barrier to obtaining mental health services and the availability of mental health providers in those schools and communities was reported to vary compared to urban schools. One SN stated "the problem we have is getting someone to come to the school. They [referring to community based clinicians] don't know where we are". There was variation in access to school counselors and psychologists as well. For instance, those working in urban school districts reported having counselors, psychologists and/or an early interventions team leader and a team consisting of nurses, psychologists, and guidance counselors versus a rural school with no mental health professionals on site. One school had a principal who was also a psychologist. This school had an innovative strength building after-school mental health program. The program, implemented by a social worker, aimed to increase self-knowledge and teach social skills to students who have behavioral problems and act out in school. In this school, referrals can be made directly by a SN or

counselor to the program or for outside counseling. The SN also reported access to a part-time psychiatrist that comes to the schools once a week. Challenging cases are presented to the psychiatrist by the SN. When asked if the psychiatrist has been useful for earlier diagnosis of mental health needs the SNs replied “no she doesn’t diagnose, she helps get information from health care providers.” Other schools reported that within school access to a psychiatrist is highly desirable but not available. Unfortunately, many other schools do not have direct access to a psychiatrist. To make matters worse recent economic constraints has necessitated reduction in the number of school mental health professionals thereby further reducing the availability of services. One SN stated:

There are not enough hours in the day or enough people to do the work. They keep cutting them [adjustment counselors]. Our school used to have two [adjustment counselors], now we have one. The high school used to have three now they have one.

Safety zone: the important role SN play in the provision of services to students with early signs of MEB needs. The SN explained that their office provides a safe haven for students to turn to when they feel physically ill, need to disclose a problem or are in need of a reprieve from school pressures because they are simply overwhelmed. One SN stated succinctly, “Lack of access or lack of parent follow through we still are going to see the child with problems.” And another explained:

The bottom line is that SNs are all accepting. They don’t care if you’re a jock, if you’re a geek, if your gender confused, if you’re a whiner, they don’t care. The SN is going to take care of you the same no matter what.

In addition to providing necessary care, the SN described student visits to their offices as an opportunity for students to simply touch base with the nurse to let them know that they are doing alright. Listening and simply being present for students was described as very important.

Specific comments made by SN related to this included: “Anxiety is so rampant it is just getting them to the stage where they can breathe. We don’t need to talk but I am here.” And, “One child would get so upset he wouldn’t know what to do so he would come in and slide under my couch! I would simply say the heat is on, be careful.” Another stated:

I’ve actually told some of my kids if you’re not feeling good to tell your teacher you need a little break from class. I will check their temperature, and then they go back to class. It is that whole concept of a safe haven. The student feels it is just too much stress, they need a safe place to go.

All the SN agreed that the SNs office serves as a safe haven despite numerous barriers described during focus group discussions. They felt that compared to the psychologists and counselors, referred to by the SN as the “experts” the SN provided necessary services despite lack of time, lack of privacy, and lack of recognition for the service they provide during their interactions with students. In each of the focus groups the SN reported that students seek their assistance with MEB needs, indicating that the availability of “experts” is inadequate to meet existing needs. The SN find that they are frequently in a situation in which they provide active listening and emotional support, deep breathing and relaxation imagery, refocusing, medication assessment and case management for students coming to them with MEB needs.

What we need to better help our kids. The SN described strategies that may promote early identification and improve the provision of services to students with MEB needs. A strategy that increases direct communication with the student and promotes identification of MEB needs was suggested by one SN:

The teachers at my school are supposed to give them [students] a health pass and check off why they are sending them. A lot of times young students will give me a little slip of paper. I ask them why you are here and they just give me the paper. I will open the piece

of paper and it will say 'headache' or 'stomach hurts'. I have begun asking them to write down why they came to the nurse. This way they might be more forthcoming.

Case management was another strategy identified as potentially improving the services provided to students. The SN viewed the provision of case management services as an essential role frequently overlooked by school administrators and other school mental health clinicians.

One SN stated:

I wish they would recognize case management is part of what we do because I find I am squeezing it in all the time. You might have a half hour or 40 minutes a day or a slow spell in which you ask, which kid can I help? You talk to the teacher and it's clear to see who needs to be helped out. It's very unofficial and we're not recognized as providing the service.

Recognition of the importance of the case management services provided by SN and support and encouragement by school administrators and other mental health clinicians of this valuable service may improve services provided to students and their families. Increased use of electronic methods to communicate with parents as well as school and community-based clinicians was described as a potential measure to improve both communication and case management.

Documentation, frequently linked to case management, was another strategy described by SNs as offering potential for improvement in the communication process. When asked if they document before or after the visit, some of the SN indicated that they try to document while the visit is occurring. Others indicated that they document twice, upon presentation and also at the end of the visit, at which time they may realize that the somatic complaints were vague and MEB needs may be noted. Several groups of nurses described use of electronic medical records. In one school the first line of documentation of the student visit is in the student's own words. One

SN described the process: “Recall the appearance and say student ____ has been here for ____ [using students own words]. We call and give the parents a heads up. We fax the primary care physician to be sure they are aware.” Another SN stated: “When the kids come to me I have a health update doctor or dentist form and I write in the date, the time in, class coming from, timeout, complaint, what I did and the outcome.” In one of the focus groups the SN stated a simple tool would be helpful. They specifically requested a one page tool with a series of words in a grid that can be checked off while they are doing a general MEB assessment.

The proximity of the guidance office and the school psychologist’s office to the SN’s office was reported to vary from school to school. In schools with close proximity, communication and team work was described as being more inclusive, consistent, and comprehensive. Improving proximity of these offices was described as an important strategy to improve communication and enhance the visibility and inclusion of the SN as part of the schools mental health team thereby improving the services provided for MEB needs.

During focus group discussions the SN briefly described their knowledge, credentialing and certifications, and their need for increased educational opportunities related to students MEB needs. All of the SN were registered nurses that possessed current nursing licensure and have had clinical experience. They described their role as “huge”, requiring them to be generalists with a broad knowledge in many areas of nursing. Despite their educational background and experiential knowledge when asked if professionals within the school view them as knowledgeable and in a leadership position, the overall consensus within and across groups was clearly and consistently “no.”

SN responses to questions related to self-identified educational needs and the availability of educational opportunities were consistent from group to group. The SN explained that since they

encounter difficulty leaving their school for trainings during the school day, they frequently must obtain continuing education during their own personal time. Several groups stated that they lost their professional development days in their contract due to budget restraints and are hoping that at some time they will be reinstated. Most of the SN stated that they have attended educational programs on their own time, though most however were not related to mental health.

The SN reported that working collaboratively with other school and community-based mental health clinicians though limited, was extremely helpful in improving services to students and SN mental health skills. Several SN described how listening to the school psychologist interview a student and ask key questions was very informative. One SN stated she tried to remember the psychologist's technique because, though different from her own it was very informative and effective. The SN consistently described how a multidisciplinary approach could provide more detailed information and continuity of care for the students with MEB needs and their families.

Many of the SN described a sense of isolation and expressed a desire for increased access to peers, increased inter-collaborative communication and team work. Explaining that they work primarily alone, several SN found the focus group helpful. They felt the group interactions provided an opportunity for the SN from the same district to share their experiences and insights with their colleagues.

Summary

The focus groups provided an effective and efficient method to gather highly detailed descriptions from SN on how they identify, refer, and provide mental health services to students with early signs of mental, emotional or behavioral (MEB) needs. Four key themes emerged through analysis of focus group data: *Frequent flyers*: student visits to SN offices, the

observations that alerted SN and the skills used for early identification of MEB needs; *Digging to get the whole picture*: the process SN frequently used to collect information necessary to identify and confirm early signs of MEB needs; *Road to referral*: the resources used and barriers encountered within the referral process; and *Safety zone*: the important role SN play in the provision of services to students with early signs of MEB needs. Within the provision of services was a collective subtheme across all five focus groups: *What we need to better help our kids*.

The SN described “frequent flyers” as students which presented with vague, variable, generalized complaints that frequently have underlying MEB needs. Student affect, school absence and declining academic achievement were also identified as potentially indicative of MEB needs. The SN described the time consuming necessity of “digging” to get a clear picture of the students needs and indicated that interpersonal communication with students and their families over time appeared to be most closely linked with their ability to identify individual differences potentially indicative of MEB needs. When describing the referral process three factors related to the SN ability to access follow up services for students with MEB needs were identified. These factors were (a) student and parental engagement; (b) leadership within the schools; and (c) availability of services.

Describing feelings of exclusion, isolation and marginalization, the focus groups facilitated expression of the SN’s desire for increased visibility and educational opportunities. Specific educational topics suggested by the SNs included methods to improve communication, increased adoption of information technology, increasing access to peers and improvement in inter-collaborative communication and team work.

Chapter V

Discussion

The findings of this study provide a lens into the complex and little explored area of early identification, referral and intervention process used by SN to care for students with mental, emotional and behavioral (MEB) needs. Understanding the role of SN is a critical first step toward improving outcomes for students with MEB needs. Three key findings were identified through data analysis. The first was the significance of “frequent flyers” and the importance of SN collaboration with other school professionals to identify MEB needs in students. The second was the lack of coordination of mental health services in schools and the need for increased uniformity in assessment, referral and intervention procedures, clarification of the role of SN among school and community-based professionals, and the need for evidence-based practice guidelines. The third finding was the potentially overlooked importance of the safe haven SN provide to students in their offices and the potential for SN leadership addressing student MEB needs. These findings will be discussed in relation to existing empirical literature and the public health framework used in the study. The chapter includes a discussion of these findings with respect to the implications for practice, research and health policy and concludes with a description of the limitations of the study and a brief summary.

Empirical Literature and Study Findings

Frequent flyers as a red flag to SN of potential MEB needs and the need for increased engagement of SN with the school community. The frequency of SN visits as a potential marker for health, emotional and family problems has been previously described by SN leaders (Shannon et al., 2010). Empirical literature identifies that children make approximately eight times more visits to the SN offices than to primary care offices (Schainker et al., 2005) and SN spend at least one third of their time providing mental health services to students with MEB

needs (Foster et al., 2005). The frequent, vague and variable nature of their somatic complaints was described as a red flag which provides a cue to SN that underlying MEB needs may be present (Shannon et al., 2010). Students with unidentified MEB needs are at an increased risk for academic failure and dropping out of school; ongoing untreated MEB needs such as depression or other psychiatric disease which negatively affects functional abilities, future employment, and suicide rates (Boyce et al., 2002; O'Connell et al., 2009; Shonkoff et al., 2009).

The further “digging” and school scene investigation described by the SN enhances the potential for early identification of students at risk for detrimental outcomes. Increased engagement of SN with their school community may enable integral pieces to be put together to obtain a holistic view of students needs and decrease the inefficiency of the identification, referral and intervention process (Bonaiuto, 2007; Brandt, 2002). Vernberg et al. (2011) has identified aggressor – victim behaviors as potentially related to increased frequency of some student visits to the SN. These behaviors necessitate evidence-based practice guidelines, prevention, early identification, and treatment. Increased interaction of SN within the school community and increased opportunities to observe students in naturalistic environments appears to be indicated.

Lack of uniformity and the need for evidence-based practice guidelines. The paradigm of health care in the U.S. is currently under reconstruction. The passage of the State Children's Health Insurance Program (SCHIP), the Affordable Care Act and implementation of the patient centered medical home approach in primary care has stimulated a redirection in the focus of the U.S. health care system from one focused on diagnosis and treatment to early identification and increased use of preventive strategies. During several of the focus group discussions the SN expressed concerns related to the lack of uniformity in identification, referral and intervention

processes possibly related to lack of evidence-based guidelines. This study provides a small lens into the SN's perspectives on all of these important issues. SN leaders have indicated that SN and other school staff have no evidence-based intervention guidelines to assist students with somatic complaints that seek SN assistance (Shannon et al. 2010). Nurses and other professionals (Adams, 2009; Borowsky, 2010; Evans, 2006; Maughan, 2003; Mazurek Melnyk et al., 2007; Puskar & Bernardo, 2007; O'Connell, 2009; Schainker et al, 2005; Wandersman et al. 2008) have identified the need for practitioner perspectives to bridge the research to practice gap, identify evidence-based practice guidelines for SN, and increase SN engagement and role expansion.

The importance of the “safe haven” provided by SN. The “safe haven” provided by SN in their offices enhances the opportunity for students to access SN assistance when needed. The establishment of on-going relationships, combined with screening (Genrich & McGuire, 2009; Horwitz & Wakefield, 2009; Scott et al., 2009) watchful waiting over time and public health surveillance of mental health (Freeman et al., 2010) has been urged in empirical literature. Gapinski and Guiliano's (2008) Massachusetts SN findings were also similar. For instance, they quantified the provision of an open door policy as being very important when dealing with children with MEB needs.

Future projects should focus on how to better take advantage of the SN safe haven as a preventive strategy for school children such as encouraging them to seek safety from teasing, bullying, violence, or family domestic issues (Vessey & O'Neill, 2011; Zinan, 2010).

Part of the problem may lie in the lack of a clear understanding by students and school staff alike as to the role the SN plays in the school around MEB needs. During focus group discussions many of the SN described a variety of barriers (including visibility) that prevent

implementation of the actions SN view as important such as the ‘safe haven’ office environment. SN invisibility has been previously reported in both in the U.S. (Brandt, 2002; Denehy, 2006) and in the U.K. (Croghan et al., 2004; Toofany, 2005). The paucity of research and documentation of the role of SNs noted during literature review for this study seems to add credibility to these previous claims that SN are sometimes “invisible.” Partially this could be attributed to their own perceptions of role as well. For instance, being upset because no one visited the SN office during parent evening could be reframed. Encouraging SNs to reach out to students, staff and parents may be necessary to increase their visibility and understanding of their role around MEB needs. Increased visibility of SN has been identified as important in efforts to reduce stigma associated with the identification of MEB needs in students (Pinto-Foltz & Logsdon, 2009).

It also means helping the SN to better understand their role and capabilities in working with children, family and school staff to better meet MEB needs. As reported in this study, a sense of inadequacy in knowledge and skills necessary to best assist students with their MEB needs is similar to the Gapinski and Guiliano findings (2008) which identified that only 25% of respondents felt very confident that they had skills necessary for early management of MEB needs in students. Providing opportunities to access skills necessary to better identify, refer and treat children with MEB needs should be explored within school districts.

The Conceptual and Organizational Framework: Public Health Process Model

SN have long provided numerous interventional services in schools. Since the inception of school nursing over 100 years ago when public health nurses were called upon to decrease student absence due to communicable disease, SN have worked at the intersection of health and academic performance. The National Research Council (NRC) and Institute of Medicine (IOM)

have urged “a shared public vision which prioritizes the healthy development of young people and places prevention of MEB disorders on equal footing with physical health disorders” (O’Connell et al. 2009, p.27). This approach necessitates a public health approach for successful implementation. Utilization of SN who work directly with a large number of students each school day and have educational preparation which includes prevention and health promotion strategies, may effectively promote the vision described by the NRC and IOM.

The public health process model used in this study has provided the conceptual as well as organizational framework for the study. The framework, consisting of five principles that facilitate adoption of a preventive health approach, is a good fit with strategies identified by the NASN to advance the role of SN in relation to students’ MEB needs. The five guiding principles of the framework are: (1) a population based approach which provides a balanced focus between children’s health problems and measures to optimize children’s positive mental health; (2) use of collaborative effort across a broad range of formal and informal systems and sectors; (3) viewing the development of mental health within the environmental context in which children grow; (4) creation of environments that promote optimal mental health; and, (5) adaptation of health promotion and prevention strategies to fit different settings and contexts.

The public health process model also outlines four stages necessary for the development of interventions. These stages are: defining the problem, identifying risk and protective factors, developing and testing interventions, and ensuring widespread use of effective interventions. The population-based focus necessitates identification of factors which influence students risk and protective factors, both at the individual as well as group level. The NASN has urged SN, as part of an interdisciplinary team, to promote initiatives that enhance the development of protective factors at both of these levels. At the individual level SN can assist in the promotion

and development of self esteem and effective help-seeking behaviors (NASN, 2008). At a broader level, employing a population-based perspective, SN involvement in educational initiatives such as anti-bullying programs; anti-violence programs and suicide prevention have been urged. Since factors influencing a student's risk and protective factors frequently encompass the student's family members and community (AAP, 2008; Cappella et al., 2008; Riley et al., 2009; Shonkoff et al., 2009), SN must work collaboratively not only with the school-based team but also with mental health professionals outside the school, family members, a variety of interested community members, and community-based agencies (Breitenstein et al., 2007; Puskar et al., 2007). Increased involvement of SN and other school based professionals in the community permits a holistic understanding of the development of mental health within the environmental context in which children grow and effective strategies to improve these environments. Increased early identification of MEB needs permits decreased reliance on mental health professionals for provision of direct care. Instead, a variety of school and community based programs may provide environments that promote optimal MEB health.

Implications

Closing the gap between the roles of SN as defined conceptually and how SN actually practice provides implications for recommendations in practice, research, and policy targeted to bring about change. The tasks necessary for change have been described as occurring in the structure (direct services providers including SN, school and community professionals providing services, school administrators) and the infrastructure that support the structures (regulatory bodies, funding sources, policy mandates) (AAP, 2009; Stelk & Slaton, 2010).

Practice. It is imperative that the efficacy of SN interventions for students with MEB needs be clearly substantiated at the practice level through data so that the data can be used to identify

needs, effective strategies, and the need for additional resources. Data of this type is frequently not available due to the traditional documentation practices used by SN that have focused primarily on the process rather than the outcomes of services provided (Selekman & Guilday, 2003; Weismuller et al., 2007). Recent budget constraints and lack of data regarding SN effectiveness has compelled school systems to question the need for school nurses (Tetuan & Akagi, 2004). SN documentation of presenting symptoms and nursing tasks performed rather than longitudinal tracking and documentation of outcomes may impede identification of underlying dynamics and the effectiveness of services provided.

The SN in this study described the need for improvement in documentation methods and changes which could improve data collection. Increased use of information technology by SN has begun in Massachusetts. Although some of the SN described using electronic health documentation they did not have an infrastructure that specifically addressed the need for screening and documentation of MEB needs. The SN in this study requested a checklist to assist them to identify MEB needs early. Training of SN in the Pediatric Symptoms Checklist (PSC) or other screening techniques may promote early identification and appropriate referrals for student MEB needs (Mass General Hospital, 2009). The Director of Research for the NASN has recommended that SN increasingly use the PSC as a screening and referral tool for “frequent flyers” (Shannon, et al., 2010). The PSC is a psychosocial screening checklist designed to facilitate recognition of MEB problems so that appropriate interventions may be initiated as early as possible (Jellinek, Murphy & Burns et al., 1986; Jellinek, Murphy, Little et al., 1999).

Standards for exemplary SN performance have been clearly articulated (Puccini et al., 2002). The overarching characteristics of exemplary SN practice are: mastery of the science of child health nursing (knowledgeable, able to respond to emergencies but recognize professional

limitations); mastery of the art of child health nursing (honest and trusted, committed to the well being of each child, family focused); effective in school and community systems (flexible, encourages team work, effective in educating administrators, works towards autonomy); excellence of communication skills (listens, follows up, has positive attitude, maintains confidentiality), and leadership qualities (a problem solver, exudes confidence, empowered, able to prioritize). Despite the articulation of these qualities, SN reported ineffective communication and self-limiting behaviors related to maintaining student confidentiality. The self-limiting behavior was described as occurring when communicating with school and community-based professionals as well as with other SN. This occurrence may be related to the likelihood that SN are more familiar with Health Insurance Portability and Accountability Act (HIPAA) regulations used in health care facilities rather than the Family Educational Rights and Privacy Act (FERPA) used in schools (U.S. Dept Health and Human Services & U.S. Department of Education, 2008). The NASN has provided privacy standards and educational information to clarify the role of SN in relation to HIPAA and FERPA (Bergren, 2009; NASN, 2004). SN leaders should provide educational programs however to clarify the distinctive differences between HIPAA and FERPA thereby reducing SN fears of violation of student confidentiality. Addressing this important issue is necessary for integration of health services provided by clinicians, including SN located in the schools, with those provided by community-based clinicians.

Changes in how school administrators view the role of SN can be addressed in coordination with evaluation of SN performance. School administrators must be informed of the link between health (both physical and MEB) and academic performance, SN scope of practice and the Standards of Professional School Nursing Practice as defined by the NASN. SN leaders (Rice et al., 2005) have suggested annual job performance evaluations using Standards of Professional

School Nursing Practice as a framework for review. Follow up on this recommendation may provide improvement in SN performance and clarification of their role.

Lastly, since new SN are reported as frequently overwhelmed with the enormity of their roles (Smith & Firmin, 2009) educational opportunities to improve effective communication, useful in the early identification of MEB needs should be provided. Opportunity to increase collaborative teamwork and decrease SN isolation may be possible by changing the location of the SN office in relation to offices of other professionals. Whenever feasible the location of the SN office should be in close proximity to other school-based mental health clinicians.

Research. The need to obtain practitioner perspectives to bridge the research to practice gap persists. Nursing researchers, educators and clinicians have called for increased attention to the effectiveness of preventive strategies (Breitenstein et al., 2007; Campo et al., 2005; Carter et al., 2006; Courey, 2006; Evans, 2009; Grossman et al., 2007; Puskar & Grabiak, 2008; Staten, 2008; Yearwood & McClowry, 2008). In support of previous research implications made by Hacker et al. (2009) urging research which examines the mental health services provided by pediatricians, implications from this study urge further research examining the specific mental health services provided by SN. Research to identify measures that will increase SN involvement, integration of services with primary care providers and role expansion is also imperative. SN potential for early identification of MEB and their capability to bridge the communication gap between students, their families, and the medical home appears to not have yet been adequately examined as a means to improve mental health care for students. The AAP has identified that SBHC providers working collaboratively with community based pediatricians may bridge the gap between the health and education communities (AAP, 2012). In schools in which a SBHC is present, SN and other school-based professionals should be included as an

integral part of this multidisciplinary team. SN through their interpersonal relationships with students and their families may play a key role in bridging the gap between the school and students medical home. Further research and development of forms and approaches initiated by the National Assembly on School-Based Health Care and the American School Health Association should be on-going until integration is achieved.

The need for further research focusing on the context in which SN practice has also been identified in the literature (Adams, 2009). Isolation from other nurses, nationwide variability in SN academic preparation, and working in schools in which there is a failure to recognize the critical link between physical health, mental health and academic performance are all detrimental to SN's ability to identify, refer, and provide mental health services (Edwards, 2002; Smith & Firmin, 2009; U.S. PHS 2000). Research which can identify specific cost-effective strategies to reduce SN isolation, increase visibility, opportunities of educational advancement and leadership would be extremely beneficial. Additional research should be initiated to accurately determine the volume and nature of student visits.

Research related to adoption of information technology is of great importance. Previous research has identified that SN are frequently the primary school service provider to which students turn for entry into the health care system (Adams & Barron, 2009; Hootman, 2003; Lear, 2007) and that students make eight times more visits to SN offices than to primary care offices (Schainker et al., 2005). These findings substantiate consideration of the role of SN as an essential link to primary care providers and the patient centered medical home. Research aimed to increase adoption of "meaningful use" applications of information technology by SN may effectively improve communication between SN and primary care providers. Nursing literature has identified establishment of SN and advanced nurse partnerships as a potential strategy to

promote increased access and utilization of services (De Socio, Elder & Puckett, 2008). To improve care of students diagnosed with MEB disorders, community-based participatory research may be useful to identify cost-effective strategies, many of which may employ information technology, in which advance practice nurses can be utilized by SN to assist with development of in-school or after-school groups. Further research aimed at the development of interventions to reduce stigma associated with the identification and treatment of MEB needs has been identified in empirical literature (Pinto-Foltz & Logsdon, 2009). The development of groups which specifically address stigma reduction may be beneficial.

Health Policy. The infrastructure which guides SN practice is primarily at the state level taking into consideration a variety of factors that influence practice at the local level (Praeger & Zimmerman, 2009). Regulatory authorities must have accurate and current information through valid, reliable, and real-time data. This data is necessary to identify needs and helpful legislation and policy at the state level (Stelk & Slaton, 2010). They must also be able to make interstate comparisons to identify best practices and measures to promote improvement in practice, education and leadership. Findings from this study support previous findings made by Tetuan & Akagi, 2004. In Tetuan and Akagi's study as well as in this one, health policy was not viewed as a nurses' role and was reported to frequently result from decisions made in response to emerging problems. Yet to bring about beneficial change in their employment environment as well as improvement in outcomes for student MEB needs, SN need to become informed, more vocal, more visible, and take a proactive rather than reactive role in decision making and policy development. They need to learn to articulate their contributions to student MEB health outcomes, increase their knowledge of educational and fiscal processes, and form relationships with local, state and federal level legislators. SN need increased educational opportunities for

the development of leadership skills and professional advocacy which would enable them to be actively involved in the development of health policy, increase their autonomy, and enable increased control of their practice. At the state and local levels increased advocacy by SN leaders to increase recognition of the role of SN may increase SN visibility and leadership opportunities. Improvement in SN leadership at the local level has also been suggested to facilitate higher levels of communication between SN and physicians.

Increasing SN visibility, including promotion of the vision of school nursing as a distinct nursing subspecialty, calls for increased opportunities for SN leadership development. Recommendations for SN certification should be maintained and supported, and efforts should be made to increase the numbers of SN with certification. SN leaders should promote opportunities for advanced SN education at the graduate degree level and recognition of the importance of SN daily interactions with students and their families which provides increased potential for early identification of changes in students' status.

Study Limitations.

The small number and homogeneity of study participants limits the transferability of this study. An additional limitation influencing transferability is the selection of all study participants from a specific, defined geographical location. The small number of participants has also limited the ability to determine if disparities related to demographic variables are present. Additional quantitative research in this area using a larger sample size would likely provide increased precision.

Two limitations of the study are related to oversights by the investigator. The first occurred during collection of participant demographic data when the number of years of experience as a SN but not the age of the participant was ascertained. Age and experience of SN has previously

been identified to be related to nurse-physician communication (Volkman & Hillemeier, 2008). The second occurred when focus group discussion and queries did not seek to identify why SN do not attend educational trainings specifically related to mental health.

Lastly, although the investigator is not a SN, close work with SN as a public health nurse could have potentially influenced the investigator's reflexivity. The investigator's familiarity with the issues that concern SN could have potentially influenced the investigators interpretation of participants' responses to focus group queries. Frequent mentor review of data, member checking and assistance during focus groups by a professional not familiar with SN issues were used to decrease potential bias.

Conclusion

This qualitative study explored SN perceptions of factors influencing their ability to identify, refer, and provide mental health services to students with MEB needs. Findings from analysis of focus group data identified that SN receive a high volume of student visits each day and have concerns related to time constraints, issues related to privacy and confidentiality, a sense of isolation and marginalization. The "frequent flyers" described consistently in each focus group further substantiates the need for increased uniformity in identification, referral, and intervention processes, evidence-based practice guidelines, increased SN engagement, and role expansion.

The study also provided a close-up view of SN experiences related to the time consuming "digging" necessary to obtain a holistic view of students needs. The candor used during focus group discussions of the barriers confront by SN at the individual, family, system, and community levels has enabled identification of important practice, research, and health policy implications. Focus group discussions revealed that the SN do understand and embrace how their role is defined conceptually by the NASN and ANA, and endorsed by the AAP. The SN that

participated in the focus groups were noted to be resourceful, identifying themselves specific strategies to decrease the incongruity they encounter in their daily practices.

As adoption of the preventive approach to children's mental health, urged by the National Research Council and the Institute of Medicine, moves forward, SN may be increasingly identified as a valuable resource in schools. For over a century SN have quietly provided a "safety zone" to which students can turn for compassionate care. SN have long provided numerous interventions and have been adaptable, with limited resources, to changing societal needs. As our society moves increasingly towards adoption of information technology it is imperative that an infrastructure that includes information technology, uniform adoption of evidence-based practice guidelines, educational preparation specific to school nursing subspecialty, and opportunity for leadership and interdisciplinary collaboration be provided to SN. Provision of these essential tools would enable SN to identify, refer, and provide mental health services using a preventive approach that will likely prove to be cost efficient and efficacious. In addition, the potential contributions of SN to childhood mental health epidemiology through de-identified data is enormous, providing the potential for improvement in the outcomes for students with MEB needs.

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