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Julie McCulloh Nair
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Alcohol Use, Misuse, and Abuse Among Nursing Students: A Photovoice Study

Julie McCulloh Nair

A dissertation submitted to the faculty of the Medical University of South

Carolina in partial fulfillment of the requirement for the degree of Doctor of Philosophy in the

College of Nursing

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Approved by:

_____
Lynne S. Nemeth, PhD, RN, FAAN, Chairman, Advisory Committee

_____
Susan Newman, PhD, RN, CRRN

_____
Marilyn Sommers, PhD, RN, FAAN

_____
Elaine Amella, PhD, APRN-BC, FAAN

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<u>ABSTRACT</u>

Existing knowledge about alcohol misuse and abuse and nursing students is founded upon

studies conducted primarily in the 1980's and 1990's, thus raising questions as to its relevance in

2014. The patterns of alcohol use and other substances over the past 30 years by students raise

several questions concerning this phenomenon, which needs further explanation beyond just the

high stress and demands of nursing education. The literature was examined first to identify

existing knowledge on alcohol misuse and abuse among nursing students. From this review, we

concluded that policy plays a vital role in this issue. Therefore, we next reviewed nursing policy

to identify existing alcohol use, misuse and abuse policies to determine how, if at all, they are

implemented. Lastly, using the Photovoice method, we conducted a qualitative study to obtain

nursing students' perceptions of the risks and protective factors associated with their alcohol

behaviors, and to categorize those factors using the ecological health behavior model.

Collectively, findings from all papers provide a view of the complexity of this issue. A continued

dialogue is needed that will drive policy change(s) and future research initiatives to better

address alcohol use, misuse and abuse in the nursing student population.

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INTRODUCTION

Alcohol misuse, which affects an estimated 30% of the U.S. population, includes a range

of risky to hazardous drinking patterns and in some cases alcohol dependence. According to the

CDC (2012) alcohol misuse is considered the third leading cause of preventable death in the U.S.

This behavior is associated with decreased health and well-being and can account for

approximately 85,000 deaths with an estimated cost to U.S. society of $220 billion annually

(AHRQ, 2012). In 2009, nearly 12,000 substance abuse (including alcohol and other illegal

substance abuse) hospital admissions of 18-24 year olds were reported nationally. Of those

admissions, college students reported alcohol as their primary substance of abuse (SAMSHA,

2012). Alcohol use, misuse, and abuse among college students, (of which nursing students are a

subset), remains a national public health issue due to persistent rates of consumption and risky

behaviors that occur despite preventive initiatives at universities nationwide (CDC, 2012;

Larimer & Cronce, 2011; NIAAA, 2012;).

College Drinking

The 2012 National Survey on Drug Use and Health (NSDUH) reported young adults

between 18-22 years of age that were enrolled as full time college students were more likely to

self-report current, binge or heavy drinking in comparison to part time students and those not

enrolled in college (SAMSHA, 2013). Estimates of the prevalence of alcohol use in the NSDUH

survey provide current alcohol consumption rates for college students that are based on

characteristics of consumption patterns, and do not differentiate on age or drink amounts

between male and female students (SAMSHA, 2013). Of those students enrolled full time,

60.3% were considered current drinkers (at least one drink in the past 30 days), while 40.1%

were binge drinkers (five or more drinks on the same occasion on at least 1 day within the past

30 day), and 14.4% were heavy drinkers (five or more drinks on the same occasion, every day for five or more days within the past 30 days) (SAMSHA, 2013).

Higher rates of alcohol consumption were also reported in the NSDUH survey among male students (45.5%) who continue to binge drink more than females (35.3%). Those with the highest levels of education were found to have the highest rates of alcohol consumption (SAMSHA, 2013). Race and ethnicity was yet another factor in the prevalence of alcohol use, with whites reporting the highest rate of current use at (57.4%), followed by persons reporting two or more races at (51.9%), blacks at (43.2%), Hispanics at (41.8%), American Indians or Alaska Natives at (41.7%) and Asians at (36.9%). Additionally, the highest levels of alcohol consumption were reported in the Northeast, and the lowest reported in the South (SAMSHA, 2013). These figures are similar to O'Malley and Johnston's (2002) findings, which examined the results of five national college drinking studies. Despite their design differences, their self-reported findings were consistent across studies with 70% of students drinking one drink in the past 30 days, and 40% drinking heavily. Race/ethnicity and gender were also found to be consistent across all studies including the NSDUH survey (O'Malley & Johnston, 2002; SAMSHA, 2013).

Many factors contribute to the alcohol misuse and abuse among college students and include societal influences, biological and psychological factors. College drinking is often revered as a tradition in many societies, carrying an expectation on many campuses that students must consume alcohol to successfully integrate into college society (NIAAA, 2002). Alcohol misuse greatly increases during the high school to college transition, due in part to the belief that drinking alcohol is part of the college experience and the social norm (SAMSHA, 2012). Many students place themselves at risk for alcohol-related injuries and decreased well-being each year

while trying to fit in with what they believe to be a socially acceptable practice (Monti, Tevyaw, & Borsari, 2004; NIAAA, 2012). Attitudes towards alcohol consumption are often influenced by the students' environment and the attitudes of their peers. Where a student resides on campus (type of dorm vs. fraternity/sorority house), whether or not they participate in clubs (sports, Greek affiliations, or ethnic clubs), and accessibility of alcohol within the campus environment may influence alcohol consumption (NIAAA, 2002).

Biologically, some young adults have a predisposition to alcohol misuse and abuse due to an immature brain, and prone to impulsive behaviors much like one would see in adolescence (NIAAA, 2002). Typically, alcohol misuse begins to develop between 18-24 years of age, which is considered the emerging adulthood phase (Jackson, Sher, Gotham & Wood, 2001). Many young adults mature after the college years when binge-drinking episodes begin to decline for some, while others maintain moderate to heavy alcohol consumption patterns, which may lead to alcohol dependence later in life (Jackson et. al., 2001; Monti et. al., 2004). Psychological factors often include depression and anxiety related to increased stress levels during this phase life. Students are often away from home and no longer under parental supervision. This is often a time of self-exploration, and students may not always make the best choices, and use alcohol as a coping mechanism (NIAAA, 2002, 2007).

Many consequences are associated with the high-risk behavior of college students. Higher rates of unintentional injuries, assaults, poor academic outcomes, arrests, vandalism, sexual assault, drunk driving, suicide and personal property damages were found in those who drank excessively in comparison to their nondrinking peers (NIAAA, 2002). Several detrimental health effects are associated with alcohol use, misuse and abuse including mood and behavioral changes, heart, liver, and pancreatic damage, cancer and decreased immune response (NIAAA,

2012). These behaviors jeopardize not only the students' health and safety, but also that of their peers and those in the surrounding community. These issues are considered costly and persistent, despite the many efforts made to reduce college drinking (NIAAA, 2002).

Several effective strategies are recommended to reduce alcohol use and alcohol related issues including: screening, brief intervention, and referral to treatment (SBIRT) (Schaus, Sole, McCoy, Mullet & O'Brien, 2009), normative changes to the university environment (Mallett, Varvil-Weld, Borsari, Read, Neighbors & White, 2013), reduction of liquor licenses in the campus community (Campbell et al., 2009; Wechsler & Nelson, 2008), increasing sanctions for alcohol use (Mallett et al., 2013), active alumni and parental support (Ichiyama et al., 2009; White & Hingson, 2013), and university administrative leadership (NIAAA, 2002). Additional strategies to consider are: increasing alcohol taxes and better training of drink servers (Wechsler & Nelson, 2008); use of mass media campaigns and engaging the Greek system; along with the provision of alternative social activities which all work to further reduce alcohol use (Mallett et al., 2013). Strategies that do not work include abstinence, education only and mandated courses, and inconsistent and unenforced campus policies (Kilmer, Cronce & Larimer, 2014; NIAAA, 2002; White & Hingson, 2013).

Several of these strategies are based on known risk and protective factors associated with alcohol use in adolescence and adulthood that include: age of onset of use (Chou & Pickering, 1992; O'Connell, Boat & Warner, 2009) perception of parental approval (Donovan, 2004; Gerra & Angioni, 2004); perceived parental monitoring (Shillington & Lehman, 2005; Stewart, 2002); peer engagement in alcohol behaviors (Beck & Treiman, 1996; O'Connell, Boat & Warner, 2009); risk taking, high sensation seeking and problem behaviors, perceived low risk of harm with use, and access and availability to alcohol (Hawkins, Arthur & Catalano, 1995); perception

of parental or sibling use, strong family relationships, and poor academic success (Birckmayer, Holder, Yacoubian & Friend, 2004). Many of the prevention strategies mentioned do have components of these risk and protective factors. However, much research is still needed to better understand and address the college drinking behaviors. Several calls to action by professional and national organizations have been released to address alcohol misuse in this population by comparing preventive initiatives, and providing additional evidence for their use (AHRQ, 2012; Jonas, 2012; NIAAA, 2007).

Nursing Students and Alcohol Use

Little is known regarding student nurses' perceptions of, and the risk and protective factors associated with alcohol misuse in this population. The persistently high national prevalence rates of college alcohol misuse provide a glimpse into the potential drinking behaviors of nursing students (CDC, 2012; Savage et al., 2011). Consideration of alcohol misuse among these students and new graduates carries several professional and legal ramifications (ANA, 2001, 2003). Data about alcohol misuse and abuse and nursing students are founded in studies conducted primarily in the 1980's and 1990's leaving many unanswered questions 20 to 30 years later.

Haack and Harford (1984) reported that nursing students were not only weekly drinkers, but consumed more alcohol than other female college students, and their rate of burnout was comparable to that of working nurses (Haack, 1988). Baldwin et al. (2006) reported rates of alcohol use among BSN nursing students (n=919) from their 1999 study at 85% in the past year. They also found 48% of those students (n=924) came from homes with a family history of alcoholism, and 42.8% of nursing students (n=920) drove after consuming three or more drinks (Baldwin et al., 2006). While Gnadt (2006) reported alcohol as the most frequently used

substance (82%), with 11% combining alcohol with illegal drugs, and 7% combining

medications for non-medical purposes with alcohol and other drugs. At the religious based

institution where Gnadt's (2006) data were collected, the prevalence of alcohol use was

calculated using frequencies and percentages and reported to be 24% among nursing students,

which is lower than non-religious based schools.

Potential alcoholism and substance abuse estimates have been noted as high as 21%

(Marion, Fuller, Johnson, Michels, and Diniz, 1996), and 83% (Polk, Glendon & DeVore, 1993),

which raises questions concerning this phenomenon, and requires further explanation beyond just

the stress and demands of nursing education. Polk et al. (1993) suggested this lack of current

knowledge might be due to the over-protection of the nursing image. Lack of interest among

nurses to research the potentially stigmatizing demographics within the profession, and lack of

interest in drinking patterns among nurses are additional factors that have contributed to

decreased knowledge on this topic (Polk et al., 1993).

Significance

Prevention interventions aimed at decreasing risk and vulnerability factors, and

increasing protective and resilience factors may help reduce overall misuse of alcohol or other

illegal substances (Begun, 1993). To reduce these risks, and increase resilience among college

students one should understand the multiple levels of influencing factors that are outlined in the

ecological health behavior model (Sallis, Owen & Fisher, 2008). Students' perceptions of their

own alcohol behaviors and that of their peers and others will inform researchers on salient issues

related to this study, rather than relying on self-report surveys administered within the college

population. Moreover, alcohol misuse or abuse by nursing students may carry more serious

consequences and implications than those experienced by a student majoring in Art, History or

English. Training experiences, which may create the opportunity for nursing students' direct involvement in patient care while impaired, present many ethical and legal implications.

Nursing students are educated and trained about alcohol misuse throughout the lifespan, but actual content hours devoted to alcohol issues are limited, and often the curriculum omits issues about substance abuse by nursing professionals, which may lead to a reduced knowledge base on this subject (Savage et al., 2011). This dissertation provides new evidence and illuminates the need to create behavior specific interventions, and policies that support and ensure both implementation and enforcement of future alcohol prevention initiatives within this population. It has informed the nursing profession of discouraging student nurse behaviors that may prove to be ethically, legally and professionally detrimental to themselves, patients, peers, nursing programs, and the professional itself. Thus, this dissertation serves as the foundation in which to build a program of research in this area by disseminating findings and continuing the meaningful exchanges among all key stakeholders on this topic, which has be under investigated over the past 30 years.

Theoretical Model

The Social Ecological Model (SEM) provides a multilevel approach to identify and better understand the many factors that affect behavior (Fleury & Lee, 2006). This public health model provides a theoretical framework for this dissertation in which to better understand how nursing students interact within their environment (Sallis, Owen & Fisher, 2008). Ecological models of health behaviors are often used to guide research and interventions designed to change health behaviors. According to McLeroy, Bibeau, Steckler and Glanz (1988), behavioral change can be initiated if "interventions are based on beliefs, understandings, and theories of the determinants of behavior" (p. 355). To meet these assumptions, one must consider and carefully analyze all

five levels of the SEM. The multiple levels of influence in the SEM include: intrapersonal, interpersonal, institutional, community and public policy (Glanz & Bishop, 2010; McLeroy et al., 1988; Stokols, 1996).

Intrapersonal factors are specific characteristics that include individual skills, knowledge, behavior, developmental processes and attitudes towards self and others. Interpersonal processes consist of formal and informal relationships with friends, family, neighbors and coworkers, which all provide considerable influence on health behaviors. Institutional factors are comprised of organizational characteristics, such as policies and procedures that may support behavioral changes through the induction of health promotion initiatives. Community factors are viewed as the relationships between social networks, organizations and institutions including neighborhoods, schools and government within a defined boundary. Public policy refers to local, state and federal regulatory laws, policies and procedures that are in place to protect the health of individuals (McLeroy et al., 1988).

As the purpose of this dissertation is to explore nursing students' perceptions of alcohol behaviors, the SEM framework guided this research. Risk and protective factors associated with alcohol use, misuse and abuse are equally important to consider in this study to determine the degree of vulnerability and resilience related to these factors. Hawkins, Catalano and Miller (1992) identified two categories of risk factors associated with substance abuse: individual and interpersonal risk factors; and contextual and other environmental risk factors. They determined that positive circumstances in individuals' lives may reduce or prevent health problems from developing. Thus, suggested preventive strategies are focused on preserving protective factors, while working to reduce the occurrence of risk factors (Hawkins, Catalano & Miller, 1992) associated with the nursing students' alcohol behaviors and individual health and well-being.

Specific Aims

     This dissertation consists of three manuscripts; (1) a scoping study of the existing literature regarding nursing students and alcohol misuse, (2) a scoping study of existing nursing policy regarding substance abuse within the nursing profession which includes nursing students, and (3) a qualitative study that uses the Photovoice method to obtain nursing student perceptions of the risks and protective factors associated with their alcohol behaviors. This dissertation employs two new strategies to investigate this phenomenon, the use of scoping studies, and use of the Photovoice method. Scoping studies provide a synthesis of the existing literature and policies (David, Drey & Gould, 2009), while Photovoice (Wang & Burris, 1997) provides a new perspective on nursing students' perceptions of alcohol behaviors during the college years. The findings of this dissertation study will inform policy makers of previously unknown alcohol behaviors among this population, along with potential risks to the profession associated with alcohol misuse among new graduate nurses.

Aim 1: To complete a scoping review of the literature to report current prevalence data about alcohol misuse by nursing students, and to provide a roadmap for future mixed methods research designed to explore this phenomenon.

     The first manuscript, Alcohol Misuse Among Nursing Students, describes the current state of the science of alcohol misuse among U.S. nursing students. Evidence was drawn from six studies that met inclusion criteria. Articles were included if they addressed US nursing students, alcohol misuse, substance abuse or chemical impairment, prevalence rates, and/or characteristics including nursing student behaviors, attitudes and beliefs. Common themes were extracted using thematic analysis and several research questions were developed to explore alcohol misuse in this population.

Aim 2: To complete a scoping review of existing policy to determine whether current nursing policy addresses nursing students and substance abuse, and to disseminate the findings for advocacy purposes and potential policy development.

The second manuscript, Substance Abuse Policy Among Nursing Students, synthesizes existing professional and state policies that address the treatment of U.S. nursing students who are impaired due to substance abuse. Evidence was drawn from four National Nursing Organizations (NNOs), along with 50 U.S. States, the District of Columbia, and two U.S. territories' Nurse Practice Acts (NPAs) and Rules. A comparative analysis was conducted on the identified policies to determine similarities and differences at the national level, state level, and between national and state levels. NPAs were selected for review based on selection criteria. Knowledge gained from this review will be used to guide future research and policy development.

Aim 3: To examine the perceptions of nursing students regarding alcohol misuse, and to define associated ecological risk and protective factors through engagement as participant investigators using the Photovoice method.

The Photovoice study uses a qualitative design that employs participatory action research, which allowed us to obtain data on the participants' thoughts and perceptions of their alcohol behaviors through self-expression and group advocacy. Four focus groups were conducted, and data from nine undergraduate nursing students were collected and analyzed. Findings from this study provided participants with a platform to express their perceived risk and protective factors associated with alcohol misuse, and provided them the opportunity to make suggestions for potential solutions to their identified issues.

References

Agency for Healthcare Research and Quality (AHRQ). (2012). Screening, behavioral counseling, and referral in primary care to reduce alcohol misuse: Comparative effectiveness review executive summary No. 64 (AHRQ Pub. No. 12-EHC055-1). Retrieved from http://effectivehealthcare.ahrq.gov/ehc/products/269/1135/CER64_ AlcoholMisuse_ExecSumm_20120608.pdf

American Nurses Association (2001). *Code of ethics for nurses with interpretive statements*. Washington, DC: Author.

American Nurses Association (2003). *Nursing's social policy statement* (2nd edition). Washington, DC: Author.

Baldwin, J. N., Scott, D. M., Agrawal, S., Bartek, J. K., Davis-Hall, R. E., Reardon, T. P., & DeSimone, E. M., 2nd. (2006). Assessment of alcohol and other drug use behaviors in health professions students. *Substance Abuse, 27*(3), 27-37.

Beck, K., & Treiman, K. A. (1996). The relationship of social context of drinking, perceived social norms, and parental influence to various drinking patterns of adolescents. *Addictive Behaviors, 21*(5), 633-44.

Begun, A. (1993). Human behavior and the social environment: The vulnerability, risk and resilience model. *Journal of Social Work Education, 29*, 26-35.

Birckmayer, J. D., Holder, H. D., Yacoubian, G. S., & Friend, K. B. (2004). A general causal model to guide alcohol, tobacco, and illicit drug prevention: Assessing the research evidence. *Journal of Drug Education, 34*(2), 121-153.

Campbell, C. A., Hahn, R. A., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., . . . Middleton, J. C. (2009). The effectiveness of limiting alcohol outlet density as a means of

reducing excessive alcohol consumption and alcohol-related harms. *American Journal of Preventive Medicine, 37*(6), 556-569.

Centers for Disease Control. (2012). Quick facts for students. Retrieved from http://www.cdc.gov/Features/CollegeHealth/

Chou, S. P. & Pickering, R. P. (1992). Early onset of drinking as a risk factor for lifetime alcohol-related problems. *British Journal of Addiction, 87*(8), 1199-1204.

Davis, K., Drey, N., & Gould, D. (2009). What are scoping studies? A review of the nursing literature. *International Journal of Nursing Studies, 46*, 1386-1400.

Donovan, J. E. (2004). Adolescent alcohol initiation: A review of psychosocial risk factors. *Journal of Adolescent Health, 35*(6), 529.

Fleury, J. & Lee, S. M. (2006). The Social Ecological Model and physical activity in African American women. *American Journal of Community Psychology, 37*(1/2), 129-140.

Gerra, G., L. Angioni, L., Zaimovic, A., Moi, G., Bussandri, M., Bertacca, S., … Nicoli, M. A. (2004). Substance use among high-school students: Relationships with temperament, personality traits, and parental care perception. *Substance Use & Misuse, 39*(2), 345-367.

Glanz, K., & Bishop, D. (2010). The role of behavioral science theory in development and implementation of public health interventions. *Annual Review of Public Health, 31*, 399-418.

Gnadt, B. (2006). Religiousness, current substance use, and early risk indicators for substance abuse in nursing students. *Journal of Addictions Nursing, 17*(3), 151-158.

Haack, M. R. (1988). Stress and impairment among nursing students. *Research in Nursing & Health, 11*(2), 125-134.

Haack, M. R., & Harford, T. C. (1984). Drinking patterns among student nurses. *International Journal of Addictions, 19*(5), 577-583.

Hawkins, D. J., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol and other substance problems in adolescence and early adulthood: Implications for substance abuse prevention. *Psychological Bulletin, 112*(1), 64–105.

Hawkins, J. D., Arthur, M. W., & Catalano, R. F. (1995). Preventing substance abuse. In Tonry, M & Farrington, D. P. (Eds.). *Building a safer society: Strategic approaches to crime prevention, (19)*, 343-427. Chicago, IL: Chicago University Press.

Ichiyama, M. A., Fairlie, A. M., Wood, M. D., Turrisi, R., Francis, D. P., Ray, A. E., & Stanger, L. A. (2009). A randomized trial of a parent-based intervention on drinking behavior among incoming college freshmen. *Journal of Studies on Alcohol and Drugs Supplement, 16*, 67-76.

Jackson, K. M., Sher, K. J., Gotham, H. J., & Wood, P. K. (2001). Transitioning into and out of large-effect drinking in young adulthood. *Journal of Abnormal Psychology 110*, 378–391.

Jonas, D. E., Garbutt, J. C., Amick, H. R., Brown, J. M., Brownley, K. A., Council, C. L., … Harris, R. P. (2012). Behavioral counseling after screening for alcohol misuse in primary care: A systematic review and meta-analysis for the U.S. Preventive Services Task Force. *U.S. Preventive Services Task Force Evidence Update*. Retrieved from http://www. uspreventiveservicestaskforce.org/uspstf12/alcmisuse/alcomisart.htm

Kilmer, J. R., Cronce, J. M., & Larimer, M. E. (2014). College student drinking research from the 1940s to the future: Where we have been and where we are going. *Journal of Studies of Alcohol and Drugs Supplement, 17*, 26-35.

Larimer, M. E., & Cronce, J. M. (2011). Individual-focused approaches to the prevention of

    college student drinking. *Alcohol Research & Health, 34*(2), 210–221.

Mallett, K. A., Varvil-Weld, L., Borsari, B., Read, J. P., Neighbors, C., & White, H. R. (2013).

    An update of research examining college student alcohol-related consequences: New

    perspectives and implications for interventions. *Alcoholism: Clinical and Experimental*

    Research, 37(5), 709-716.

Marion, L., Fuller, S., Johnson, N. P., Michels, P. J., & Diniz, C. (1996). Drinking problems of

    nursing students. *Journal of Nursing Education, 35*(5), 196-203.

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on

    health promotion programs. *Health Education Quarterly, 15*(4), 351-377.

Monti, P. M., Tevyaw, T. O., & Borsari, B. (2004). Drinking among young adults: Screening,

    brief intervention, and outcome. *Alcohol Research & Health, 28*(4), 236-244.

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2002). A call to action:

    Changing the culture of drinking at U.S. colleges. Retrieved from http://www.

    collegedrinkingprevention.gov/media/TaskForceReport.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2007). What colleges need to

    know now: An update on college drinking research. (NIH Publication No. 07-5010).

    Retrieved from http://www. collegedrinkingprevention.gov/1College_Bulletin-

    508_361C4E.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2012). Alcohol's effects on the

    body. Retrieved from http://www.niaaa.nih.gov/alcohol-health/alcohols-effects-body

O'Connell, M. E., Boat, T., & Warner, K. E., Eds. (2009). Preventing mental, emotional, and

    behavioral disorders among young people: Progress and possibilities. Committee on the

Prevention of Mental Disorders and Substance Abuse Among Children, Youth and

Young Adults, Institute of Medicine. Washington, DC: National Academies Press.

O'Malley, P. M., & Johnston, L. D. (2002). Epidemiology of alcohol and other drug use among

American college students. *Journal of Studies of Alcohol and Drugs Supplement, 14*, 23-

39.

Polk, D., Glendon, K., & DeVore, C. (1993). The chemically dependent student nurse:

Guidelines for policy development. *Nurse Outlook, 41*(4), 166-170.

Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. In Health

behavior and health education: Theory, research, and practice (4th ed., 564-485). San

Francisco, CA: Jossey-Bass.

Savage, C., Dyehouse, J., Marcus, M. (2014). Alcohol and health content in nursing

baccalaureate degree curricula. *Journal of Addictions Nursing, 25*(1), 28–34.

Schaus, J. F., Sole, M. L., McCoy, T. P., Mullett, N., & O'Brien, M. C. (2009). Alcohol

screening and brief intervention in a college student health center: A randomized

controlled trial. *Journal of Studies of Alcohol and Drugs Supplement, 16*, 131-141.

Shillington, A. M., Lehman, S., Clapp, J., Hovell, M. F., Sipan, C., & Blumberg, E. J. (2005).

Parental monitoring: Can it continue to be protective among high-risk adolescents?

Journal of Child & Adolescent Substance Abuse, 15(1), 1-15.

Stewart, C. (2002). Family factors of low-income African-American youth associated with

substance use: An exploratory analysis. *Journal of Ethnicity in Substance Abuse, 1*(1),

97-111.

Stokols, D. (1996). Translating social ecological theory into guidelines for community health

promotion. *American Journal of Health Promotion, 10*(4), 282-298).

Substance Abuse and Mental Health Services Administration (SAMHSA). (2012). Treatment

    Episode Data Set (TEDS). Retrieved from http://www.samhsa.gov/data/spotlight/

    spotlight054College2012.pdf

Substance Abuse and Mental Health Services Administration (SAMSHA). (2013). Results from

    the 2012 national survey of drug use and health: Summary of national findings, NSDUH

    series H-46, HHS Publication No. (SMA) 13-4795. Retrieved from http://www.

    samhsa.gov/data/ NSDUH/2012SummNatFindDetTables/NationalFindings/

    NSDUHresults2012.pdf

Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory

    needs assessment. *Health Education & Behavior, 24*(3), 369-387.

Wechsler, H., & Nelson, T. F. (2008). What we have learned from the Harvard School of Public

    Health College Alcohol Study: Focusing attention on college student alcohol

    consumption and the environmental conditions that promote it. *Journal of Studies of*

    Alcohol and Drugs, 69(4), 481-490.

White, A., & Hingson, R. (2013). The burden of alcohol use: Excessive alcohol consumption and

    related consequences among college students. *Alcohol Research, 35*(2), 201-218.

MANUSCRIPT I- Alcohol Misuse Among Nursing Students

Abstract

Background: The self-reported prevalence of alcohol use among United States (US) college students decreased from 90.5% in 1980 to 79.2% in 2012. National efforts exist to reduce alcohol misuse among college students in the US, yet little research addresses the general topic area of substance abuse among nursing students, and even less specifically address alcohol misuse. Alcohol misuse in nursing students may result in personal and patient harm.

Purpose: This scoping study describes the state of the science of alcohol misuse among nursing students, guided by the research question: What is the current state of alcohol misuse among US nursing students?

Methods: Evidence was drawn from several scholarly sources. Articles were included if they addressed US nursing students, alcohol misuse, substance abuse or chemical impairment, prevalence rates, and/or characteristics including nursing student behaviors, attitudes and beliefs. Using thematic analysis, common themes were extracted, followed by hand coding those themes and using NVivo qualitative software.

Results: Six studies met inclusion criteria. Three themes, eight subthemes, and several gaps in knowledge were identified. The themes include: *high prevalence exists, necessity of supportive environments, and hopelessness without policies*. Subthemes *include root cause, vulnerable population, scholarship and substance use, education, identification of risk factors, prevention and deterrents, safety, ethical and legal issues, and consequences*.

Conclusions: Based on this analysis, several research questions were developed to explore substance abuse in this population. Alcohol was the most often used substance. Nursing students were unaware of a safe level of consumption and the potential negative health-related and professional effects associated with alcohol misuse.

Keywords: Student Nurses, alcohol misuse, substance abuse, nursing education

Introduction

Self-reported prevalence of alcohol use among US college students decreased 11% from 1980 to 2012 (Johnston, O'Malley, Bachman, & Schulenberg, 2013). Yet, 85% of students state they use alcohol, and 20% self-reported high frequency alcohol use (3 or more times a week) (Core, 2012). Consequences of alcohol consumption include alcohol-related health issues, academic decline, unintentional injuries, sexual assault, and death (National Institute on Alcohol Abuse and Alcoholism (NIAAA), 2013). Despite preventive efforts instituted by the NIAAA's Task Force on College Drinking, alcohol misuse and associated risky behaviors, including binge drinking, are continuously reported by college students at universities nationwide (NIAAA, 2007, 2012, 2013). Society's acceptance of alcohol misuse among college students, including nursing students, only perpetuates the situation (Fleming, 2002; Hyman, 2004).

Substance Abuse in Nursing Students

Four studies have previously determined prevalence rates of substance abuse among nursing students, one in 1981 by Haack and Harford (1984), and three longitudinal studies, 1982-1984 by Haack (1988), 1988-1992 by Marion et al., (1996) and 1988-1991 by Coleman et al. (1997) Unfortunately, many methodological limitations were reported with those studies regarding sample selection, lack of generalizability, and problems with the choice of measures of prevalence (Smardon, 1998; Sullivan & Handley, 1992). Lack of research on this topic has led to a near nonexistent knowledge base in this population. (Sullivan & Handley, 1992). Stigma and vulnerability due to the potential for disciplinary action have made it difficult to explore nursing student addictions (Smardon, 1998; Sullivan & Handley, 1992).

The existing knowledge about substance use patterns in US nursing students is founded upon studies conducted primarily in the 1980's and 1990's, primarily during the NIAAA nursing

faculty fellowship programs, raising concerns over the current relevance of existing data (Stevenson & Sommers, 2005). Sullivan and Handley (1992) asserted younger nurses may be at greater risk for substance abuse due to the stress and demands of the job, and Smardon (1998) argued nurses working within specialized areas may be at greater risk. Haack and Harford (1984) reported that nursing students in their study were not only weekly drinkers, but consumed more alcohol than other female college students, and their rate of burnout was comparable to that of working nurses (Haack, 1988). These findings highlight the stress and demand of nursing education and the early career phase of nurses. This is of particular concern, because nurses with substance abuse disorders have reported that this behavior begins before or during nursing school (Coleman et al., 1997). Thus, further research is warranted to determine (a) current drinking patterns of nursing students and young nurses, (b) the factors that contribute to substance abuse in nursing education and practice and (c) current prevalence rates.

Where Are We Now?

Limited research has been conducted over the last 20-30 years, despite rates of alcohol misuse among college students increasing over the last decade. Prevalence rates and behaviors of nursing students (future nurses) are unknown. Research citations are from quantitative studies (no qualitative studies identified) and more than 10 years old, creating uncertainty over current nursing students' substance use behaviors. Lack of current knowledge is related to: protection of college students through privacy laws preventing data collection associated with substance abuse; overprotection of the nursing image; lack of interest among nurses to research nursing students; lack of research funding; and lack of faculty documentation of student substance abuse occurrences at their respective institutions (Polk, Glendon, & DeVore, 1993). The lack of research on the adherence to, and variation among, nursing student policies on substance abuse

signals the need for an exploration of the originating causes and characteristics of chemically impaired nursing students (Haack, 1985; Monroe & Pearson, 2009; Smardon, 1998; Sullivan & Handley, 1992).

Research Aims

The purpose of this review is to: 1) report current prevalence data about alcohol misuse by nursing students by identifying themes and gaps found within the literature; and 2) provide a roadmap for future mixed methods research designed to explore alcohol use, misuse and abuse within this potentially vulnerable population, as a basis to influence future academic policies. *The following research question was used to guide this study*: What is the current state of alcohol misuse among traditional college-age nursing students in all programs?

Methods

Study Design

A descriptive scoping study of existing literature pertaining to nursing students and alcohol misuse was used, following Arksey and O'Malley's (2005) methodological framework (see Appendix A). Scoping studies aim to provide a comprehensive overview but not an in-depth analysis of a subject. Preliminary evidence is drawn from several sources that include research and non-research (white papers, editorials, gray literature), a strategy employed in this design to identify a variety of knowledge regarding alcohol misuse among nursing students. As a result, quality appraisal is not necessary as in systematic reviews, which seek to appraise and synthesize existing empirical evidence meeting pre-specified inclusion criteria (The Cochrane Library, 2014). Scoping reviews also allow for analytical reinterpretation of the literature, whereas integrative reviews seek to identify and organize existing data (Davis, Drey & Gould, 2009; Levac, Colquhoun & O'Brien, 2010).

Scoping studies are also appropriate for the synthesis of a broad base of existing evidence, providing an overview of a specific issue or topic (Davis, Drey & Gould, 2009). The method is particularly appropriate for this study, as many literature sources were reviewed and used to inform either the background or results sections of this paper, and provide support for the development of a roadmap in future research. The flexibility of this multiphase design enables exploration of existing data through various forms of literature, reading and re-reading the original studies to gain familiarity with the content to further refine, clarify, and define the existing data, and identifying conceptual limitations associated with the topic under investigation (Davis, Drey & Gould).

Definition of Terms

Several terms, often used interchangeably, are found related to impairment of nursing students. Yet, particular nuances distinguish these terms. The first two terms below function as umbrella terms regarding the range of specific disorders, while the third refers to a condition. In this study, the terms will be operationally defined as follows:

1. *Substance use disorder* is defined in this study by the Diagnostic and Statistical Manual of Mental Disorders 5th edition (DSM-5) (2013) as a disorder measured on a continuum from mild to severe that is addressed by a specific substance such as alcohol or stimulants. It is often referred to as substance misuse and abuse.

2. *Alcohol misuse* describes a range of behaviors and consists of three main patterns of alcohol consumption that include hazardous drinking, harmful drinking, and dependent drinking. Hazardous drinking occurs when people drink beyond the recommended weekly limits, which is 14 drinks for men and 7 for women. Binge drinking, occurs when people drink beyond the daily limits, (4 drinks for men, and 3 drinks for women) over a short period of

time (NIAAA, 2010). Harmful drinking is defined as individuals drinking over the recommended limits and experiencing health problems related to alcohol use (NIAAA), while dependent drinking (alcoholism) is defined as being physically and psychologically addicted to alcohol (NHS, 2011).

3. *Chemical impairment* refers to nurses who are unable to function competently in their role, because they are impaired by a chemical substance, such as alcohol or drugs. Psychological dependence occurs when a person believes they need a substance to cope with their emotions, whereas physical dependence occurs once a person builds tolerance to, then stops using a chemical substance at which time their body begins the withdrawal process (Doweiko, 2011). Dependence should not be confused with nurses who have a substance use disorder, because they may be fully functioning and not considered impaired, and capable of delivering safe care in the clinical setting (Haack & Yocom, 2002; NCSBN, 2011).

Search of the literature

A comprehensive search of scholarly databases included the Cumulative Index of Nursing and Allied Health Literature (CINAHL), PubMed, and PsychINFO. Mesh terms identified in PubMed included: ("Students, Nursing"[Mesh]) OR "Schools, Nursing"[Mesh] AND ("Alcohol-Related Disorders"[Mesh]); and ("Students, Nursing"[Mesh]) OR "Schools, Nursing"[Mesh]) AND "Substance-Related Disorders"[Mesh]) NOT ("Students, Nursing"[Mesh]) OR "Schools, Nursing"[Mesh] AND ("Alcohol-Related Disorders"[Mesh]). Keywords used to search CINAHL, and PsychINFO included "nursing students, alcohol" and "nursing students, substance abuse." Additional sources were located through hand searches of reference lists, and use of two web-based search engines, Google Scholar and Rutgers University's Alcohol Database, using the same keywords to identify additional peer reviewed

publications, and grey literature to further identify relevant articles. A second search of the literature was conducted by reviewing the results of the initial search and focusing only on current articles based on the exclusion criteria as described in the following paragraph. Articles were included if they addressed all nursing students (ASN, BSN and diploma; commuters and residents) in the US, and alcohol misuse, substance abuse or chemical impairment as long as prevalence rates, and/or characteristics including nursing student behaviors, attitudes and beliefs associated with this topic were reported. Articles were excluded if they were not written in English, focused primarily on policy and curriculum development, and were published prior to 1998. Articles more than 15 years old were not reflective of current trends in all nursing programs, thus the year 1998 was chosen as the cut off for inclusion criteria. In addition, articles written about nursing students in other countries were excluded due to concerns over cultural and educational differences of global regions.

Data Selection - Review of literature

A total of 207 articles were identified from search engine methods, and one was identified through a hand search of references. Articles were initially screened by reviewing abstracts to determine the purpose, but many were reviewed in entirety due to the absence of abstracts, and to determine further relevance in a second screening resulting in 29 articles. After the second screening, an additional 23 articles were excluded, because they did not meet inclusion criteria (see above). The six final articles were selected based on inclusion and exclusion criteria and their relevance to the topic at hand (see figure 1).

Data Analysis

Articles selected for final review were read in entirety and data were extracted and categorized based on study characteristics: purpose, sample, setting, design, methods,

theory/framework, outcomes, comments, future research recommendations, potential themes, and gaps. An extraction tool (matrix table) was developed to assist with thematic analysis, determination of common features (themes) that are relevant to the study topic (Charmaz, 2006; Sandelowski & Barroso, 2006; Tuckett, 2005) (see Table 1). Content was organized and grouped into common themes that were then abstracted to provide refined themes that are inclusive of each other (Sandelowski & Barroso, 2006).

Articles were imported into NVivo 10.0 software (QSR, International Pty, Doncaster, Australia) for qualitative analysis. Data were initially hand coded by identifying words and short phrases from the texts that were symbolic or meaningful and considered potential themes. Memos were used throughout the data analysis phase to document key thoughts or ideas that would assist with the creation of potential themes, or linking themes together, and to assist with the summary of findings. Analytical themes were eventually created from the refined initial themes to assist with the data analysis process.

Results

Review of Current Literature

A total of six articles were selected for review based on data selection criteria that discussed nursing students and substance abuse, alcohol misuse and/or chemical impairment. Three overarching qualitative themes were identified upon completion of thematic analysis. Within each of those themes, several subthemes emerged along with several gaps in knowledge. Together these themes provide a theory as to what is currently known regarding nursing students and substance abuse, alcohol misuse, and chemical impairment, while the gaps identify what currently remains unclear or unknown. The three themes, and their respective subthemes, are presented in Table 2. A summary of findings follows.

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Summary of Findings

Alcohol Use is Highly Prevalent Among Nursing Students

This most common theme among all sources was that a high prevalence of drinking exists in nursing students. Two studies reported current rates of alcohol, and drug use in their specific samples, but only one of those studies (Gnadt, 2006) occurred in the last decade. Baldwin et al. (2009) published their results of a study conducted in 1999, which may not reflect current trends. Both studies provided the most up-to-date rates of use and reported high prevalence rates of both alcohol and drug use among nursing students.

Baldwin et al. (2009) reported 84.3% prevalence of alcohol use in the past year in a sample (n=471) of Bachelor of Science in Nursing (BSN) students. Of those students, 15.7 % self-reported past year abstinence from alcohol, 18.3% drank five or more drinks per typical occasion, 32% drank five or more drinks over the past two weeks, and 11 students reported abstaining from alcohol use due to recovery from alcohol dependency. Gnadt (2006) reported current use of all substances to be 24% among Associate of Science in nursing (ASN) and BSN students who attend a religious based college or university, and further citing alcohol use at 82% and the most frequently used substance among those surveyed. These findings are strikingly similar to the findings reported by Baldwin et al., (2009) despite the differences in sample demographics found in both studies. In contrast, a sample of schools was surveyed to determine incidence of substance abuse on their campuses and 83% of respondents reported having issues in the past and at times referring students for treatment (Polk et al., 1993).

Underlying the high prevalence of alcohol use by nursing students, subthemes included root causes, nursing students as a vulnerable population, and scholarship and substance use. The discussions about prevalence included "root causes" to seek to understand the cause of substance

use among students. Root causes cited included: family history of substance use, stress and rigors of work and nursing school, financial burden, peer influence and new independence, lack of university support, and medical conditions, which all contributed to an increased risk (Baldwin et al., 2009; Gnadt, 2006; Spier, 2000).

Nurses have reported substance abuse begins during nursing education due to the associated stressors, which demonstrates the "vulnerability" of this population. However since research is lacking, nursing students and practicing nurses are not considered at higher risk than the general population (Buckner, 2002). Additionally, scholarship and substance abuse were noted as a potential risk factors, because students who were highly ranked in their class were also found to have high rates of substance abuse (Buckner, 2002; Pierce, 2001).

Necessity of Supportive Environments

A supportive environment is essential for nursing students and requires several elements that include counseling and health services, closer faculty and student relationships, addiction education, and policies and guidelines to assist with chemically impaired students (Baldwin et al., 2009; Buckner, 2002; Pierce, 2001; Polk et al., 1993). Substance abuse prevention is vital on campus. This may include reduction of available sources of addictive substances such as alcohol vendors and placing limitations on the amount of alcohol licenses approved for a certain radius around campuses (Baldwin et al., 2009). Peer assistance is also needed to provide support among nursing peers, or the prevalence of substance abuse will continue due to acts of commission and omission which include not recognizing alcohol as an addictive substance, and covering for impaired peers (Pierce, 2001).

Faculty face similar challenges when addressing suspected substance abuse and would benefit from policies that provide a strategy to address chemically impaired students in a

constructive manner (Spier et al., 2000). Similarly, clear and consistent guidelines are needed

regarding rehabilitation of nursing students at both the institutional and state level (Polk et al.,

1993). Currently, rehabilitation policies for nursing students are often left to the institution in

which they are enrolled (Pierce, 2001), and the state board of nursing may not have jurisdiction

over those nursing students, leaving the state board unable to assist with this issue (Polk et al.,

1993). However, states can create guidelines for nursing education programs to implement

regarding rehabilitation of nursing students that should include advice on self-report, peer report,

or faculty report of probable substance abuse (Pierce, 2001).

Education was cited often in all sources, but mentioned primarily when referring to

nursing education curricula. Students were not only unable to identify acceptable levels of

consumption, they were unable to identify addictive substances and some stated alcohol was not

an addictive substance (Baldwin et al., 2009; Pierce, 2001). Both students and nursing faculty

were unable to recognize the signs and symptoms of a chemically impaired student or peer and

were not sure how to confront the chemically impaired or dependent individual (Pierce, 2001;

Polk et al., 1993). Thus, Baldwin et al. (2009) stated further education on addiction is needed and

suggested mirroring the current model of treatment for substance abuse and addictions.

Moreover, identification of risk factors and deterrents were addressed along with

education. Several references to patterns of behavior and factors that either increased or

decreased substance abuse among nursing students were noted. Early identification of risk

factors may assist with reduction of substance abuse in nursing students, and in nursing overall.

Nurses have reported that their addictions began during nursing school, and disciplinary actions

related to substance abuse are frequently reported by the state boards of nursing (Gnadt, 2006;

Pierce, 2001). Furthermore, students who reported higher consumption rates were found to have

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more risk factors for substance abuse and dependence than those who drank at lower levels (Gnadt, 2006). Those who participated in Greek affiliations and athletics reported an increased risk for binge drinking (Baldwin et al., 2009; Pierce, 2001). Conversely, those who frequently participated in religious services had a decreased risk for substance use (Gnadt, 2006). Thus, to decrease incidence of substance abuse, further investigation of risk and protective factors associated with nursing addictions is needed (Buckner, 2002; Baldwin et al., 2009).

Hopelessness without Policies

Challenges exist for many students and faculty when policies are not in place for addressing chemically impaired students. Faculty find these situations to be emotional and express distress at being unable to assist students in need (Polk et al., 1993). Without policies, faculty members are unable to determine treatment and rehabilitation options, or how to best remove chemically impaired students from the clinical setting (Gnadt, 2006; Polk et al., 1993; Spier et al., 2000). Protective policies ensure patient and public safety (Buckner, 2002). At present, it is unknown how many students are practicing impaired, and there is no system to track these individuals (Gnadt, 2006).

Several legal and ethical issues exist regarding chemically impaired students, including upholding a student's privacy, remediation, rehabilitation and return to school and practice. If students are impaired while at school or in the clinical setting, unintentional harm to either the student or patients may result. Responsibility for safe practice falls on the university, school of nursing, and clinical faculty (Spier et al., 2000). However, without policies or use of required blood and urine testing, it may be difficult to maintain safe standards and remove students from the clinical practice (Polk et al., 1993; Spier et al., 2000). Polk et al. (1993) reported that 49% of faculty do not confront students suspected of chemical impairment, nor do Department Chairs or

Deans report these same students to their state board of nursing even if the reporting mechanism is mandatory in their state, and there is no system in which to follow these students to ensure they remain safe to practice.

Identified Gaps

Several gaps were identified by each source. Much remains unknown regarding current prevalence rates, behavioral trends, root cause, and lack of policies regarding substance abuse and nursing students (Baldwin et al., 2009; Buckner, 2002; Gnadt, 2006; Spier, 2000). A paucity of nursing literature regarding this topic remains (Gnadt, 2006). Lack of guidelines or policies was cited for protection of students and the public. There is no method for peer confrontation, nor model for use in chemically impaired students (Pierce, 2001). Baldwin et al. (2009) addressed the lack of knowledge regarding the root cause of substance abuse, while Gnadt (2006) addressed the lack of a national reporting system to track student nurses. In addition, a lack of prevention, addiction, and substance abuse education was reported by (Pierce, 2001). Thus, the need for current literature remains to better understand substance abuse among nursing students (Baldwin et al., 2009; Buckner, 2002; Gnadt, 2006; Spier, 2000).

Limitations

Several figures and tables are provided detailing the methods process of this study to ensure descriptive validity and transparency of findings. Interpretive validity may be a limitation in this study due to one investigator conducting this thematic analysis. Coding of all themes was completed by hand in matrices; then all articles were uploaded in NVivo for further analysis that included the auto coding and auto reports to ensure an accurate identification of themes, and gaps (Sandelowski & Barroso, 2006). Reflexive memos were written to identify and reduce bias of the researcher.

Discussion

Identifying actual prevalence rates in nursing students remains difficult due to a lack of current research on this topic, but based on the two studies identified in this scoping review that reported rates of alcohol use, they are similar to the national alcohol use rates of all college students. The rate of alcohol and other drug use has remained high and persistent over the past three decades, but how this is impacting the profession is unknown (Core, 2012). The last known prevalence and causality study was conducted in 2006 and not likely representative of current trends. The data are also not generalizable to the entire nursing student population, because the sample was representative of nursing students attending Seventh-day Adventist colleges in the U.S., in which specific social and religious norms do not support the use of alcohol.

Risk and protective factors were identified, reflecting that students at the top of their class were once again identified as those drinking at unsafe levels, which was also mentioned in the early 1900's and again in the 1990's (Buckner, 2002; Coleman, 1997; Heise, 2002; Pierce, 2001). Therefore, more research is needed to identify specific risk and protective factors that contribute to the vulnerability of this population.

A supportive environment with prevention and rehabilitation efforts is needed. Lack of close faculty and student relationships was found as an issue; however, faculty must also maintain objectivity, and a professional standard of conduct. Therefore the forging of close relationships may be helpful, but also raises questions about how to maintain professional boundaries as described by the Code of Ethics for Nursing (ANA, 2001). This type of relationship would also demand the provision of additional time to assist impaired students, which may not be feasible for all nursing faculty. Perhaps the formation of a task force, along with peer assistance groups located within each nursing school, may be a better option as long as

faculty and student peers are allotted sufficient time and resources to assist impaired students. Otherwise universities need to consider the additional stressors placed upon student nurses and ensure they are receiving adequate assistance through campus health and counseling services, in addition to campus peer assistance programs.

Nursing curricula along with faculty development also need further examination. Students are unaware of the associated dangers of substance abuse, which was well document by Baldwin (2009) and Pierce (2001). Faculties were unaware of signs and symptoms of chemically impaired students, and lack approaches for intervening with these students. Knowledge deficit leads to frustration among faculty, confusion among students, and worst of all, continued substance abuse that more than likely continues into the student's early nursing career. Role playing to assist students build skills regarding confrontation of peers, might help students, as well as faculty better address chemically impaired students. This appears to be a missed opportunity to not only prevent substance abuse, but also educate and rehabilitate students, which may lead to decreased rates of nursing addiction in the future.

Lack of policy is another issue contributing to alcohol misuse and abuse, as found in nearly every aspect of identified themes. Due to the lack of regulatory policies, prevalence rates are unknown, and unmonitored. Lack of school policy on how to treat the chemically impaired student only perpetuates the situation by allowing the substance abuse to continue, because faculty are uncertain as to how to address, manage, rehabilitate, and monitor chemically impaired students. Without uniform guidelines, substance abuse will continue to be an issue in the future.

Based on findings from the review of literature, a theoretical model or framework does not exist for use within this population. Alternative to discipline approaches exist for treating addicted nurses (National Council of State Boards of Nursing (NCSBN), 2011) that could be

adapted for use in nursing students. Evidence based models should be considered for use in establishing a theoretical model for nursing students. Protective polices and a monitoring system warrants careful consideration, so that patient safety is maintained and nursing students receive adequate assistance and supervision when facing an addiction. Thus, a tracking system at the state or national level may help to reduce the incidence of impaired nursing students from practicing in an institution where patients could be harmed.

A system similar to *Nursys*, which was developed by the NCSBN to monitor and share disciplinary actions of nurses in each state, could be used in the nursing student population for those students unwilling to seek treatment. This type of system could be developed and implemented if nursing programs and their respective state boards of nursing agree to work together on this initiative. Although barriers currently exist that relate to privacy policies, and lack of nursing program oversight by many state boards of nursing, a few do provide oversight and work closely with their nursing programs, requiring the directors and deans of these programs to report nursing students with substance use disorders, and assist students with the rehabilitation process.

Presently, nursing students are able to leave one school and enroll in another school without having to report prior substance abuse issues, much like registered nurses did prior to the establishment of *Nursys* (NCSBN, 2011). Nurses were able to move from state to state, reestablishing their practice even if they received a disciplinary action, because those occurrences were not tracked at a national level with state cooperation (NCSBN). Therefore, future investigation of a similar program for nursing students is recommended along with a recommendation for further development and implementation of alternative to discipline programs for nursing students. Consideration about their developmental stage and associated

issues that were discussed earlier should be considered while drafting programs and nursing

students should have resources available to them to treat their addictions. Finally, the reported

gaps were many and were already addressed throughout this discussion, but it is imperative to

stress once again that a lack of scientific evidence still exists related to alcohol misuse and

nursing students despite the acknowledgment of this issue over the past 30 years.

Conclusion

The purpose of this study was to scope the current situation regarding nursing students

and alcohol misuse, by reviewing the literature. The intent was to provide evidence that may be

used to inform future research that is designed to explore alcohol use, misuse and abuse within

this population. Alcohol remained the most prevalent substance of use among nursing students.

Students were for the most part unaware of alcohol's addictive nature, or what is considered a

safe level of consumption. They remain unaware of the risk for addiction due to the lack of

education on this subject. They are particularly vulnerable and at higher risk for alcohol misuse

due to the additional adult responsibilities they assume as nursing students because they may not

have adequate coping mechanisms in place to manage the stressful situation that often occur in

clinical nursing. Therefore, this scoping review provides convincing evidence for specific

research based upon the themes found in this review. These themes can be used to guide further

studies of nursing students related to substance use, and guide policy revisions and

implementation of new assistive programs in the future.

References

American Nurses Association (ANA). (2001). *Code of ethics for nurses with interpretive statements.* Washington, DC: Author.

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology, 8*(1), 19-32.

Baldwin, J. N., Bartek, J. K., Scott, D. M., Davis-Hall, R. E., & DeSimone, E. M. (2009). Survey of alcohol and other drug use attitudes and behaviors in nursing students. *Substance Abuse, 30*(3), 230-238.

Buckner, M. (2002). Substance abuse among nursing students. *Dean's Notes, 23*(3), 1-3.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* Retrieved from http://books.google.com.mx/books?id= _zABE9rkMM8C

Coleman, E. A., Honeycutt, G., Ogden, B., McMillan, D. E., O'Sullivan, P. S., Light, K., & Wingfield, W. (1997). Assessing substance abuse among health care students and the efficacy of educational interventions. *Journal of Professional Nursing, 13*(1), 28-37.

Core Institute. (2012). *Executive summary: Core alcohol and drug survey-long form.* Retrieved from http://core.siu.edu/pdfs/report10.pdf

Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-5) (2013). Substance-related and addictive disorders. Retrieved from http://www.dsm5.org/Documents/ Substance %20Use%20Disorder%20Fact%20Sheet.pdf

Davis, K., Drey, N., & Gould, D. (2009). What are scoping studies? A review of the nursing literature. *International Journal of Nursing Studies, 46*, 1386-1400.

Doweiko, H. (2011). Concepts of chemical dependency. Retrieved from http://books. google.com/books?id=RWMIAAAAQBAJ

Fleming, M. F. (2002). Clinical protocols to reduce high risk drinking in college students: The

   college drinking prevention curriculum for health care providers. Retrieved from

   http://www.collegedrinkingprevention.gov/ media/FlemingManual.pdf

Gnadt, B. (2006). Religiousness, current substance use, and early risk indicators for substance

   abuse in nursing students. *Journal of Addictions Nursing, 17*(3), 151-158.

Haack, M. R. (1985). Impairment and the student of nursing. *Imprint, 32*(3), 61-62.

Haack, M. R. (1988). Stress and impairment among nursing students. *Research in Nursing &*

   Health, 11(2), 125-134.

Haack, M. R., & Harford, T. C. (1984). Drinking patterns among student nurses. *International*

   Journal of Addictions, 19(5), 577-583.

Haack, M. R., & Yocom, C. J. (2002). State policies and nurses with substance use disorders.

   Journal of Nursing Scholarship, 34(1), 89-94.

Heise, B. (2002). The nurse habitue: The history of addiction in nurses, 1850-1982. *Windows*

   Time, 10(1), 5-7.

Hyman, Z. (2004). Historical interpretations of alcohol use & misuse: Implications for nursing

   curricula. *Journal of Psychosocial Nursing & Mental Health Services, 42*(11), 46-57.

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2013). *Monitoring the*

   future national survey results on drug use, 1975–2012: Volume 2, College students and

   adults ages19–50. Ann Arbor: Institute for Social Research, the University of Michigan.

Levac, D., Colquhoun, H., & O'Brien. (2010). Scoping studies: Advancing the methodology.

   Implementation Science, 5(69), 1-9.

Marion, L., Fuller, S., Johnson, N. P., Michels, P. J., Diniz, C. (1996). Drinking problems of

   nursing students. *Journal of Nursing Education, 35*(5), 196-203.

Monroe, T., & Pearson, F. (2009). Treating nurses and student nurses with chemical dependency:

Revising policy in the United States for the 21st century. *International Journal of Mental Health and Addiction, 7*, 530-540.

Monroe, T., & Kenaga, H. (2010). Don't ask don't tell: Substance abuse and addiction among

nurses. *Journal of Clinical Nursing, 20*(3-4), 504-509.

National Council of State Boards of Nursing (NCSBN) (2011). Substance use disorder in

nursing. Retrieved from https://www.ncsbn.org/SUDN_10.pdf

National Health Service (NHS) (2011). Alcohol misuse definition. Retrieved from http://www.

nhs.uk/Conditions/Alcohol-misuse/Pages/Definition.aspx

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2002). A call to action:

Changing the culture of drinking at U.S. colleges. Retrieved from http://www.

collegedrinkingprevention.gov/media/TaskForceReport.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2007). What colleges need to

know now: An update on college drinking research. (NIH Publication No. 07-5010).

Retrieved from http://www.collegedrinking prevention.gov/1College_Bulletin-

508_361C4E.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2010). Rethinking drinking:

Alcohol and your health. Retrieved from http://pubs.niaaa.nih.gov/publications/

RethinkingDrinking/Rethinking_Drinking.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2012). Alcohol's effects on the

body. Retrieved from http://www.niaaa.nih.gov/alcohol-health/alcohols-effects-body

National Institute on Alcohol Abuse and Alcoholism (NIAAA) (2013). College drinking.

>Retrieved from http://www.niaaa.nih.gov/alcohol-health/special-populations-co-

>occurring-disorders/college-drinking

Pierce, C. S. (2001). Faculty forum. Implications of chemically impaired students in clinical

>settings. *Journal of Nursing Education, 40*(9), 422-425.

Polk, D., Glendon, K., & DeVore, C. (1993). The chemically dependent student nurse:

>Guidelines for policy development. *Nursing Outlook, 41*(4), 166-170.

Sandelowski, M., & Barroso, J. (2006). Handbook for synthesizing qualitative research.

>Springer Publishing: New York, NY.

Smarden, M. (1998). An integrative review of substance abuse among nurses from 1981-1997.

>*Online Journal of Knowledge Synthesis for Nursing, 5,* 1.

Spier, B. E., Matthews, J. T., Jack, L., Lever, J., McHaffie, E. J., & Tate, J. (2000). Impaired

>student performance in the clinical setting. A constructive approach. *Nursing Education,
>25*(1), 38-42.

Stevenson, J.S., & Sommers, M.S. (2005). The case for alcohol research as a focus of study by

>nurse researchers. *Annual Review of Nursing Research*, 23, 3-26. (PMID: 16350761)

Sullivan, E. J., & Handley, S. M. (1992). Alcohol and drug abuse in nurses. *Annual Review of

>Nursing Research, 10*, 113-125.

The Cochrane Library. (2014). What is a systematic review? Retrieved from http://www.

>thecochranelibrary.com/view/0/AboutCochraneSystematicReviews.html

Tuckett, A. G. (2005). Applying thematic analysis theory to practice: A researcher's experience.

>*Contemporary Nurse, 19*(1-2), 75-87.

Figure 1. Scoping literature search process. This figure demonstrates the article screening and selection process.
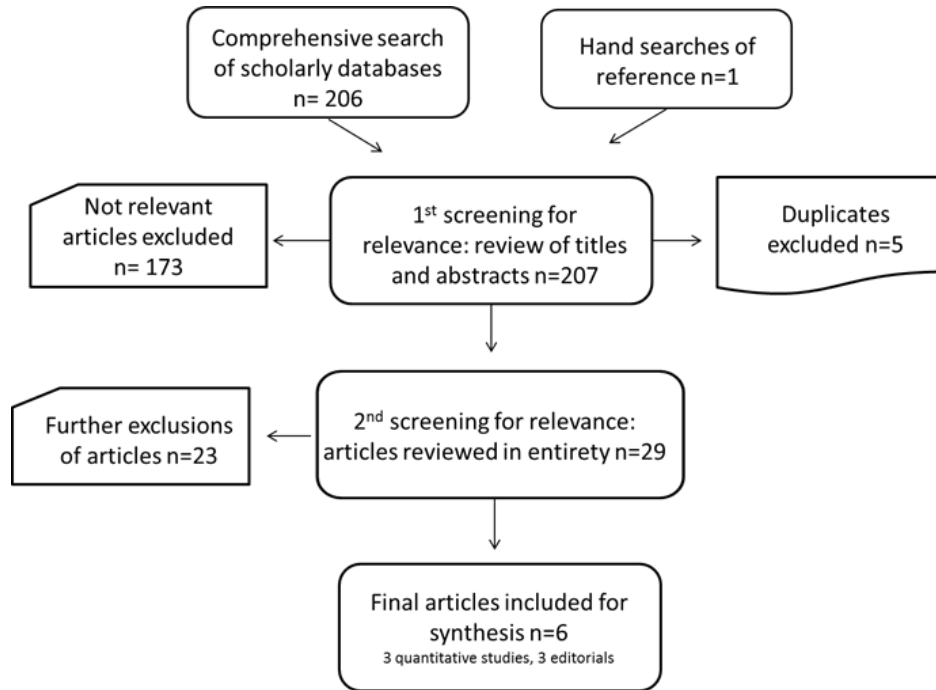
Table 1. Study Characteristics of NSs and alcohol misuse found in the literature between 1998 and 2013.

Author(s)	Purpose	Sample	Design	Outcomes
Baldwin et al., (2009)	**Purpose:** -Statewide study of nursing schools to survey for attitudes and behaviors associated with AOD, and to collect data for comparison of previous findings.	**Sample:** n= 2017 NSs enrolled in nursing programs (public, private and non-university based) during **1999**.	**Design:** -Quantitative, Descriptive Analysis	**Outcomes:** **Themes:** -AM prevalence in NS population -Personal and professional safety issues associated with risky behaviors -Scholarship and increased SA. -Family Influence **Gaps:** -No mention of policies regarding NSs and AM. -Need for current literature that addresses NS's alcohol use. -Need to understand the root cause, i.e. stress, family and peer influence, lack of university support.
Gnadt, B. (2006)	**Purpose:** -Investigation of current SA and associated early risk indicators for dependence in NSs during freshmen year. -Examination of the existing relationships between religiousness, current SA, and early risk indicators for abuse and dependence.	**Sample:** -n= 241 freshman NSs, 72% 18-24 years of age and predominately white females attending Seventh-day Adventist's colleges and universities in the U.S.	**Design:** - Quantitative, descriptive analysis	**Outcomes:** **Themes:** -Alcohol use despite religious beliefs. -Decreased use and religiousness. **Gaps:** -Paucity of literature on NSs, religiousness and SA stated in background. -No mention of policies regarding NSs and AM. -Need for current literature that addresses NS's alcohol use. -No national reporting system of NSs and chemically impaired practice, thus actual use rates remain unknown.
Buckner (2002)	**Purpose:** To discuss SA and NSs; current state, warning signs, and policy development	**Sample:** N/A	**Design:** -Editorial	**Outcomes:** **Themes:** -Scholarship and increased rate of SA. -Personal and professional safety issues associated with SA. -Hopelessness without policies **Gaps:** -Little is known regarding actual rates of current use among SNs.

Author(s)	Purpose	Sample	Design	Outcomes
Pierce, C. S. (2001).	**Purpose:** Discussion of SA, AM among NSs including prevalence, education, safety issues and regulations.	**Sample:** N/A	**Design:** Editorial	**Outcomes:** **Themes:** -Scholarship and increased rate of SA. -Personal and professional safety issues associated with SA. -Increased use related to organizational affiliation: religion, athletics, and Greek organizations. -NSs uninformed on SA, and AM. **Gaps:** -Lack of education in addiction, and prevention in NSs curriculum -Need for nursing faculty to better understand characteristics of impaired students and related protective policies and RN Practice Acts.
Spier, et al., (2000).	**Purpose:** Discussion of impaired NSs, guidance for policy development.	**Sample:** N/A	**Design:** Editorial	**Outcomes:** **Themes:** -High risk for impairment related to personal and professional stressors. - Personal and professional safety issues associated with SA. **Gaps:** -Lack of policy to address impaired NSs in practice. -Lack of known national prevalence rates of NSs.
Polk et al, (1993) *included due to relevance.	**Purpose:** Phase 1: To determine frequency of chemical dependency in NSs along with identification of existing associated policies. Phase 2: State boards of nursing surveyed to determine existing policies for SA and NSs.	**Sample:** -107 randomly selected nursing schools (ADN, BSN, diploma, MSN and doctoral programs). -51 state boards of nursing.	**Design:** -Quantitative, 2 phase descriptive study	**Outcomes:** **Themes:** -Faculty burden -Faculty/student relationships -Personal and professional safety issues associated with SA. -Prevalence of SA in NSs. -Use of guidelines, and preventive efforts. **Gaps:** -Lack of guidelines for faculty and NSs to follow regarding SA. -Lack of state board involvement, no tracking system of impaired NSs post licensure.

* NSs –Nursing Students, * AM- alcohol misuse, * SA-substance abuse, *UTI-under the influence, *SUD-substance use disorder, *AOD-alcohol and other drugs

Table 2. *Identified Themes and Subthemes Regarding Student Nurses and Substance Abuse,*

Alcohol Misuse, and Chemical Impairment

Themes	*Subthemes*
High Prevalence Exists	root cause, vulnerable population, scholarship and substance use
Necessity of Supportive Environments	education, identification of risk factors and prevention, deterrents
Hopelessness Without Policies	safety, ethical and legal issues, consequences

MANUSCRIPT II – Substance Abuse Policy Among Nursing Students: A Scoping Review

Abstract

Background: Nursing students practicing in healthcare settings may increase risks to consumers, if impaired by drugs and/or alcohol that make them incapable of practicing safely. Several agencies implemented educational/professional policies that are designed to protect healthcare consumers from risks. Policies addressing impaired nursing students vary among these agencies and no nationally implemented policy exists for the treatment of impaired nursing student practice in the U.S.

Purpose: In this scoping study, we synthesize substance abuse policy among nursing students, guided by the research question: What professional and state policies exist to address substance abuse among U.S. nursing students? The broader term, substance abuse was used because alcohol specific policies were not identified.

Methods: Evidence was drawn from several policy documents identified through electronic sources that include National Nursing Organizations (NNOs) and Nurse Practice Acts (NPAs) and Rules. A comparative analysis was conducted on the identified policies to determine similarities and differences at the national, state, and between national and state levels.

Results: Four NNO policies, 50 U.S. States, District of Columbia, and two U.S. territories' NPAs were selected for review based on selection criteria. Six areas were identified in NNO policies, and four were identified in NPAs that addressed chemically impaired nursing students.

Conclusions: This review of current policy provided evidence that identifies and describes areas of concern. Impaired nursing practice, which includes nursing students, remains a major issue, complicated by the inconsistencies noted particularly within the reviewed NPAs. The knowledge gained from this review will be used to guide future research and subsequent policy development at the state level. Currently, a national policy is not possible unless amendments are made to the U.S. Constitution to include regulation of healthcare professionals' practice.

Keywords: Student nurses, alcohol misuse, substance abuse, impaired student nurse policies, substance abuse in nursing education

Introduction

The prevalence of substance abuse among nursing students is currently unknown. We can estimate prevalence by examining reports of amount and frequency of use in current college students. These reports demonstrate persistent use of alcohol and other drugs within this begins prior to, or during, nursing education, particularly in traditional bachelors of science in nursing (BSN) college students, 18-22 years (Monroe & Pearson, 2009). A better understanding of substance use disorders within nursing students is needed, as well as policies during this life phase that better address this issue, and prevent legal and ethical dilemmas for BSN, faculty and clinical agencies (AACN, 1998; Monroe & Pearson, 2009).

Institutional and state policies regarding nursing students and substance abuse are addressed in the literature, and often found in editorials written by nurses to provide guidance for nursing faculty when faced with an impaired student (Pierce, 2001; Sisney, 1992; Spier et al., 2000). Nursing students are expected to adhere to policies developed by their institution, accrediting nursing organizations and their state boards of nursing (AACN, 1998). However, no uniform policy regarding substance abuse in nursing education exists in the U.S. (Haack & Yocom, 2002; Monroe & Pearson, 2009). Creation of uniform policies for nursing students may be difficult due to the many agencies that must be considered. Each has their own unique role within nursing education and some have limited ability to create (AACN, 1998), and more importantly enforce, substance use policies within this population (Harris et al., 2010).

State boards of nursing are charged with maintaining the public's health through the establishment of safe standards of practice and professional licensing in their respective state and through their Nurse Practice Act (NCSBN, 2011b). They may oversee the establishment of nursing education requirements, and approval of new nursing programs via their administrative

authority, using state rules/regulations to direct the practice of nursing. Licensure applications of new graduates are also evaluated by the state boards of nursing that base licensing decisions on the applicant's ability to meet all requirements set forth by their nurse practice act (NCSBN, 2011b) and *The 2011 Uniform Licensure Requirements* (NCSBN, 2012b). However, state boards of nursing typically have no jurisdiction over individual unlicensed personnel (nursing students) (NCSBN, 2011a), and national nursing accreditors such as the Commission on Collegiate Nursing Education (CCNE) and the American Association of Colleges of Nursing (AACN), provide quality assurance of nursing education programs (NCSBN, 2012b), but neither has oversight authority for substance abuse among students, despite the fact that they provide direct patient care in many clinical settings (NCSBN, 2011a). Who is responsible for regulating the practice of nursing students? Is it the state board of nursing's responsibility to enforce safe practice guidelines regarding impaired nursing student practice, the academic institution's responsibility, the accrediting nursing body, or professional nursing organizations' responsibility, or does this issue require involvement by all parties?

Background

Haack and Yocom (2002) reported many state boards of nursing have developed and implemented methods to address substance abuse among nurses that provide an alternative to discipline (ATD) approach. This alternative approach assists with treatment for these individuals and provides them with the opportunity to return to work, rather than causing their immediate dismissal through zero tolerance policies. The American Nurses Association (ANA) (2002) supports the use of ATD approaches and includes nursing students in this policy statement. They specifically recommend use of peer assistance for nursing students. The American Association of Colleges of Nursing (AACN) (1998) provides recommendations (not oversight) in their

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substance abuse policy for nursing education programs that include students, faculty and staff. The AACN also suggests that substance abuse education be included in the curricula, and treatment be provided to those with addictions. However, most academic institutions have tended to follow a zero tolerance policy, rather than create ATD approaches for impaired nursing students (Monroe & Pearson, 2009), and nursing curriculum is often cited as having inadequate amounts of substance abuse education, including signs and symptoms, and addiction treatment options (Hymen, 2004; Monroe & Pearson, 2009). Moreover, Monroe and Pearson (2009) found that policy is often inadequate and does not assist with treating substance abuse. They suggest a comprehensive approach that requires developing supportive and confidential treatment policies, in addition to implementation of educational programs designed to decrease prevalence rates of substance abuse in nursing students.

The variations in state nurse practice acts and academic and professional policies may make implementing and evaluating programs for nursing students difficult due to their inconsistencies. It also makes it difficult to identify the prevalence and impact of impaired nursing student practice due to the potential of program dismissal if nursing students themselves report alcohol or drug misuse or abuse. Continuation of zero tolerance policies that are designed to dismiss students, rather than rehabilitate those who consume alcohol once while under the age of 21, or report to clinical under the influence of prescribed medications, such as narcotics or anxiolytics, may even work to deplete the future nursing workforce. A better understanding of the current state of policy is needed to effectively address issues regarding impaired nursing student practice.

Definition of Terms

Policy Defined

Many nursing organizations have provided policy statements pertaining to the practice of professional nursing at the national level. State boards of nursing and academic institutions often provide policy statements at their respective levels. Thus, it is important to provide a definition of policy when referring to nursing policies. It is equally important to define terms such as a law and rules/regulations, because they explain how policy is implemented. In this study, a *policy* is defined as a statement, or organizational directive, that reflects an organization's beliefs pertaining to a specific issue or problem (Milstead, 2013). A law is a legal directive that is formed by public opinion, and serves to "establish the framework and authority base for the regulatory process" (Milstead, 2013, p. 74). Rules/regulations are created to clarify and provide details as to how an administrative agency, such as the state board of nursing, will implement the law (Milstead, 2013).

Substance Abuse Defined

The Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-5), now identifies substance abuse and substance dependence as "substance use disorder," which is measured on a continuum ranging from mild to severe (American Psychiatric Association (APA), 2013). Individual substances are addressed as separate use disorders, diagnosed using the same continuum criteria, and include the following substances: alcohol; caffeine; cannabis; hallucinogens; inhalants; opioids; sedatives, hypnotics, and anxiolytics; stimulants; tobacco; and other/unknown substances (APA, 2013). Examples include: alcohol use disorder, cannabis use disorder, opioid use disorder, and sedative, hypnotic, or anxiolytic use disorder. Therefore, *substance abuse* is operationally defined in this paper, as a substance use disorder that is

measured on a continuum ranging from mild to severe, that is diagnosed based on the pathological pattern of behaviors that are present and related to the use of the previously mentioned substances (DSM-5, 2013).

Impaired Practice Defined

The terms impaired nurse, and impaired nursing student will refer to their clinical practice, and be operationalized in this paper as engaging in unprofessional conduct, that violates rules/regulations of the state where the individual is practicing nursing, and is due to the habitual use of a substance, to the extent that the substance use impairs the nurse or student nurse, and psychological and/or physical effects are evident (APA, 2013; NCSBN, 2011).

Research Aims

The purpose of this scoping review is to: 1) determine whether current nursing policy addresses nursing students and substance abuse; 2) examine the similarities and differences of existing policies; and 3) disseminate findings of this review for advocacy purposes and potential policy development. *The following research questions were used to guide this study*: What professional and state policies regarding substance abuse and nursing students exist, and are there gaps that expose the public to risk of harm that need to be addressed?

Methods

A descriptive scoping study of existing policy regarding nursing students and substance abuse was used, following Arksey and O'Malley's (2005) methodological framework (see Appendix A), which is an appropriate approach for this type of study for several reasons. Use of specific inclusion and exclusion criteria, and a post-hoc approach allowed the researcher to gain familiarity of the subject matter and to complete this exploratory research (Levac, Colquhoun, & O'Brien (2010). During content analysis of identified policies, an inductive approach was used to

compare and contrast data. This iterative process provided flexibility during data extraction and analysis, which was essential for this type of review due to the necessity for interpretation, and re-interpretation of existing policy, which cannot be found in systematic and integrative reviews (Levac, Colquhoun, & O'Brien, 2010). Systematic reviews are concerned with quality appraisal of existing data, and integrative reviews do not allow analytical reinterpretation of data (Davis, Drey, & Gould, 2009; Levac, Colquhoun, & O'Brien, 2010). Flexibility was needed to examine various forms of policy from various sources, and to provide a comprehensive analysis of existing policy that would not be possible if a systematic or integrative review were conducted.

This study's aim was to explore various forms of existing policy by examining the breadth of existing data, which is the intent of scoping reviews (Davis, Drey, & Gould, 2009). Once investigation of existing policies regarding impaired nursing students was completed, a comparative analysis of their content was conducted along with an evaluative appraisal to determine their potential applicability to, and effect on this issue (Davis, Drey, & Gould, 2009). Identification of the current state of substance abuse policy was achieved through the review of various forms of policy, and assisted with forming a comprehensive policy overview of this topic.

Search for Policy

The review of policy was conducted in two phases. The first phase identified policies of national nursing organizations (NNO), while phase two identified policies of each state board of nursing (SBON) regarding nursing students and substance abuse. In phase one, a search for existing NNO policies was conducted via Google, a web based browser using keywords: nursing organizations, nursing regulating and accrediting bodies, nursing educational organizations, and student nurse organizations. A list of U.S. nursing organizations was identified and searched via

Sigma Theta Tau International's website. In addition, personal knowledge of NNO along with a hand search of references from reviewed articles assisted with the identification process. In phase two, a web based search was conducted using the National Council of State Boards of Nursing's Nurse Practice Act Toolkit (2014) that assists with the retrieval of Nurse Practice Acts (NPAs) and Rules that exist for each state and U.S. territory.

Data Selection - Review of Policy

Organizations were included for initial review if they were located within the U.S. and identified as national nursing organizations. Nursing organizations that were specialty specific within nursing, but outside of nursing education, were excluded due to their specialized focus. One exception was made due to the International Nurses Society on Addictions (IntNSA) relevance to the topic under study. A total of six websites were identified to review based on the inclusion criteria and the researcher's personal knowledge of professional nursing organizations. Once organizations were identified their websites were searched for policy statements and/or regulations regarding nursing students and impaired practice to identify existing policies on this topic (see figure 1). In addition, a total of 50 U.S. States, the District of Columbia, and four U.S. territories' boards of nursing were selected for review as described above.

Figure 1. Phase 1: Scoping policy. This figure demonstrates the search process of NNO policies.
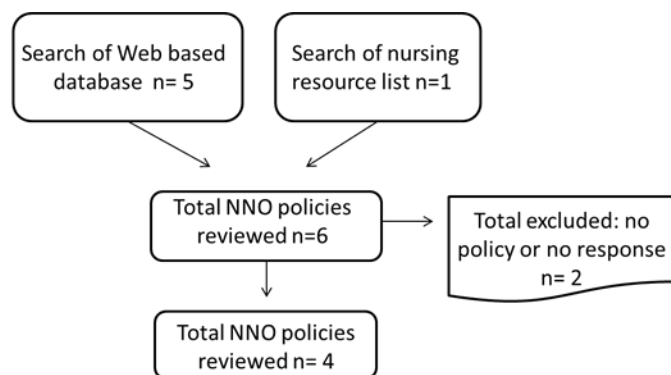
Data Analysis

Policies selected for review were read in their entirety and data were initially extracted and categorized based on NNO policy characteristics: organization, provision of nursing student substance abuse policies, policy statement excerpts addressing nursing students and substance abuse, summary of statements, and similarities and differences between NNO policies. The search was broadened to include substance abuse policy due to the absence of alcohol specific policy, which was the original intent of this study. The same procedure was then repeated for all available NPAs. If a policy was not identified via web based search, the organization was contacted by email to confirm findings. NPAs were then compared to NNO policies to determine whether the proposed national policies were apparent in the NPAs, and how the NPAs differed between states.

Results

Review of Policy

A total of four NNO policies, along with 50 U.S. States, the District of Columbia, and two U.S. territories' NPAs (American Samoa's and U.S. Virgin Islands' were not available) were selected for review based on selection criteria. The comparative analysis assisted the researcher with identifying existing similarities and differences between organizations at the state and national level. Findings from the comparative analysis are presented below in a narrative summary based on similarities and differences (see Table 1 for NPA results).

National Nursing Organizations

The four NNO policies included American Nurses Association (ANA), The National Council of State Boards of Nursing (NCSBN), American Association of Colleges of Nursing (AACN), and the National Student Nurses Association (NSNA). Two organizations, the National

League for Nursing, and the IntNSA were excluded from review, because the IntNSA (personal communication, 2013) does not have a policy regarding this topic, and there was no identified policy or response from the NLN when contacted via email and by phone.

The reviewed NNO policies were fairly consistent. All demonstrated 1) A protective nature within their statements, making patients and the public the primary priority for nursing; 2) A requirement for abstaining from drugs and alcohol to prevent impaired practice, and poor patient outcomes associated with impaired practice; 3) Ethics and a non-punitive stance to address impaired practice, to avoid a violation of the Code of Ethics for nurses, which directs nurses to assist their impaired colleagues (ANA, 2001); 4) Rehabilitation of impaired nurses and nursing students with a planned return to work or school was found in each policy; 5) Safety concerns regarding impaired practice were mentioned by all, however, the ANA (2001) places responsibility to maintain standards with nurse educators who are to ensure only competent students graduate from nursing programs; 6) Nursing students were acknowledged as an at risk population regarding substance abuse, each having a substance use disorder policy.

Prevalence of impaired practice was only mentioned by the ANA (2002) and NCSBN (2011a). The ANA (2002) supports educating the public and nursing profession on substance use within nursing, including prevalence rates. Similarly, the NCSBN (2011a) and the AACN (1998) were the only NNOs citing substance abuse as a "major" issue, because without attention given to this topic, the health and welfare of the nursing profession remains compromised as a result (NCSBN, 2011a). Nursing students are not monitored for substance abuse, but the need for awareness of prevalence is addressed by both the NCSBN (2011a), and the ANA (2002). Additionally, the NCSBN (2011a) was the only organization that stated substance abuse begins

prior to, or during nursing education, and they were the only organization that felt attention was necessary to ensure viable nurses in the future.

Overall health, prevention, and education regarding substance abuse were addressed by all, but only the NCSBN (2011a), AACN (1998) and NSNA (2001) specified nursing students as the focus for the policy. However, an assertion could be made that the ANA (2002) intended to include nursing students in their statement, given they include students as a part of the nursing profession. If this assertion is correct, then all policy concerning impaired nurses should also apply to nursing students, which may assist with future policy development, implementation and evaluation. The ANA (2002) along with the NSNA (2001) suggested use of peer support for substance abuse within nursing and compliance with regulating bodies and Federal, State and Local laws was only mentioned by the AACN (1998) and the ANA (2001).

Nurse Practice Acts Reviewed

A review of 53 NPAs was conducted to identify existing policies regarding nursing students and substance abuse. Findings among state and national organizations were similar in that many similarities and only a few differences exist. All identified areas within NNO policy were found in the NPAs. However, not all NNO categories were found within each NPA. All reviewed NPAs cite that BONs establish safe practice guidelines for the nursing profession. BONs are charged with overseeing evolution of these laws within their jurisdiction as new needs arise within the profession (NCSBN, 2011b). The majority of BONs provide educational oversight and/or approval to schools of nursing in their respective states. This allows schools the freedom to function individually and within their institutional guidelines as long as they maintain the BON's and, if applicable, the nursing program's accrediting body's standards for nursing education (NCSBN, 2012a). They also develop educational standards and requirements for

licensure, and monitor schools for adherence to their prescribed guidelines (NCSBN, 2011b). Florida and Mississippi BONs appear to be exceptions, providing no oversight, and the New York BON appears to work with the State Education Department, rather than as their own entity.

Four areas were identified within the NPAs/Rules that refer/pertain to nursing students (see Table 1). The areas are as follows: 1) Professional nurse examination qualifications: background checks required and/or denial for licensure related to alcohol and drug use; 2) Nursing education: student services, curriculum, and student records; 3) Student disciplinary actions and/or medical examination; and 4) alternative to discipline programs offered to students. The content of these policies vary between states, which is interesting and raises several questions as to why and what is the effect of this variability. Some NPAs rules/regulations follow the ANA's (2002) recommendations for substance abuse among nursing students, while others differ considerably due to jurisdiction over students in those states. No clear rationale for this variation in jurisdiction is provided in the reviewed policies.

Most BONs request applicants for licensure (nursing students) to have good moral character, although they never define what this means, and many require background checks prior to licensure (NCSBN, 2014). Personal qualities along with the physical and mental health of nursing students are discussed in six NPAs, requiring nursing students to undergo a health examination prior to admittance and periodically while in school (ME Code § 02-380-07, 2013; PA Code § 21.111, 2005), when the student's competence is questioned (MD Code § 8-205.1., 2013; OR Code § 851-031-0007, 2007; SC Code § 40-33-116, 2004), or they are simply expected to maintain their health (Guam Code § 6431, 1997). One NPA (NE Code § 97-012.06, 2006) places the students' health determination upon the presiding institution.

NPAs may require institutions to set the same safe practice standards for nursing students as that of registered nurses within that jurisdiction (OH Code § 4723-5, 2014; UT Code § R156-31b-603, 2013). NPAs may also require nursing faculty to assess student behaviors and their ability to assume clinical duties, requiring student removal from clinical areas if injuries to patients may occur (VA Code § 18VAC90-20-96, 2014; AL Code § 610-X-3-.02, 2012). According to some NPAs, nursing program administrators may be required to report any student they suspect of having a chemical dependency (TX Code §215.8., 2012), or if the nursing student fails to maintain eligibility for licensure, which includes chemical dependency (CA Code § 1428.6, 2010).

Student services and substance abuse curricula are frequently mentioned requiring institutions to provide health services to nursing students, and nursing faculty to provide substance abuse education during their program of study. Acceptable content is often listed as: nursing history and trends, including professional, legal, and ethical aspects, but one NPA (IN Code § 848 IAC 1-2-17, 2007) provides specific content regarding chemical substance abuse among professionals.

Many NPAs also require the provision of counseling services and ATD programs when appropriate (NCSBN, 2011a). Disciplinary action or investigation for nursing students who use habit-forming substances is discussed in only 4 out of 53 reviewed NPAs (LA Code § 921, 2010; MN Code § 148.261, 2012; SD Code § 36-9-49, 2005; WV Code § 19-1-12, 2009), which is atypical considering most BONs have no jurisdiction over nursing student practice. Louisiana and West Virginia are the only NPAs that specifically state "nursing students", and the other two NPAs refer to applicants which are typically nursing students or new graduates, but not licensed. ATD programs were offered by two NPAs (LA Code § 3419, 2014; WV Code § 19-3-15, 2007)

and one NPA (NC Code § 21NCAC 36.0320, 2006) suggested academic institutions within their jurisdiction should offer treatment or counseling (ATD program). Furthermore, the policies may be considered substandard due to the variation in terms found in the reviewed NPAs that are used to describe substance abuse, such as "habit-forming", "chemical impairment", "chemical substance abuse", and "chemical dependence".

Limitations

The lack of uniform terminology found in the existing policies made this review difficult to complete. We recognize that policy is often broad, and this is done intentionally to provide lenience with the administrative authority who implement policy (Milstead, 2013). However, due to the lack of uniformity in terminology we may have inadvertently omitted policy that may have been intended for use with substance abuse, but not stated as such. For example, does good moral character entail absence from substance abuse? Individual state boards of nursing are positioned to provide further direction on policy, and to eliminate the vagueness of their state rules/regulations. In addition, figures and tables were provided detailing the methods process of this study to ensure transparency of findings.

Discussion

Review of Policy

Comparisoning state NPAs to NNO policy was difficult, because the premises of state and national policies differ, except for the protective nature found in their policies. NNO policy is meant to provide direction on what is, and is not acceptable, and how to implement nursing policy, whereas NPAs are meant to regulate the practice of nursing within that respective state (Milstead, 2013; NCSBN, 2011a). The Code of Ethics (ANA, 2001) was apparent throughout all NPAs, but states retained the legislative freedom in how to apply that code. For example, safe

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practice policy is established to prevent impaired nurses from practicing under the influence, often times receiving disciplinary action, peer assistance and rehabilitative services, all of which reflect Provision 3.6, Addressing Impaired Practice (ANA, 2001). BONs, however, are not required to implement this same standard for nursing students, and most omitted nursing students in their NPAs.

While many NPAs did establish specific guidelines for nursing students that mirror that of registered nurses, particularly related to personal expectations (no recent criminal history), and to educational standards, other states retained their right to not establish such guidelines. This raises questions as to whether nursing students are falling through the cracks in terms of regulation of practice. Some NPAs did require students to undergo health examinations, which might reveal to nursing programs, and state boards of nursing any substance abuse issues during the course of their education. Additionally, many states require nurse applicants to complete a criminal background check at the time of licensure to identify criminal behaviors, including substance abuse crimes (DUI). Unfortunately, nurse applicants may still obtain a license, because they have no criminal record, but that does not mean they have not had prior alcohol and drug related incidents that were not reported to legal authorities.

Screening, brief intervention and referral to treatment (SBIRT) is recommended by the NCSBN (2011a) for early identification and treatment for substance abuse issues (Babor et al., 2007). This approach also includes a treatment option, which incorporates the recommendations of all NNOs reviewed. Thus, having this type of documentation at the state level may assist with a reduction in the amount of nurses entering the profession with criminal histories, as pointed out by one NPA (TN Code, 1000-01-.13, 2011), which also includes those with drug and alcohol

charges. This type of documentation should not prevent them from entering the professional at a future time when safe practice can be assured (NCSBN, 2011a).

Language and terminology within the NPAs varied considerably, and that variance is problematic. For example, how would one define "adequate" student services? Some NPAs list the multiple services that must be offered to students, including both mental and physical health services. Others NPAs state that counseling services must be offered, which may refer to financial and academic counseling and support services. In addition, once nursing education policies are agreed upon and implemented, who enforces these policies? It appears, particularly when nursing student competence is called into question, that the school's administrator is expected to report students to the BON. This may not be an effective strategy, particularly when students' mental and physical health is not being monitored on a regular basis. To further complicate matters, one would imagine students could be rehabilitated just as a registered nurse, but very few NPAs require this type of assistance from their nursing education programs (NCSBN, 2011A).

Potential exists for key leaders within nursing to create effective national strategies that may better assist with substance use issues within nursing education. A uniform policy along with the establishment of a regulatory board to oversee nursing education and substance abuse/impaired nursing student practice may be warranted, albeit difficult due to the variance among state rules and regulations. The NNO policies reviewed for this comparative analysis could be combined to create a comprehensive policy that incorporates the physical and mental health needs of nursing students. Future research should focus on exploration of impaired nursing student practice regulations in U.S. States and Territories. Researchers should consider studies that seek to identify existing policies that provide effective strategies to examine this

issue. Identification of policy tools that are designed to assist with the evaluation of policy outcomes should be identified or developed to assist with evaluation of policy outcomes. Findings from such studies will provide evidence based advice when seeking to develop, implement and evaluate future policy (Milstead, 2013).

Conclusion

The purpose of this study was to review current policy regarding nursing students and substance abuse by reviewing the current state of nursing policy at a national and state level. This review of policy provided evidence that identifies and describes areas of concern: 1) inconsistencies in pre-licensure requirements, 2) non-mandatory education on substance abuse within nursing and lack of nursing faculty requirements to report impaired practice, and 3) ambiguous regulations on nursing student disciplinary actions, and 4) limited availability of alternative to discipline programs for nursing students. The scope of impaired nursing practice, includes among nursing students, remains a major issue, complicated by particular policy inconsistencies noted within the reviewed NPAs. The knowledge gained from this review informs the nursing profession, nursing educators, health system administrators and the public on the gap in clear systems to protect the public from impaired student nurse practice, and failure of the nursing profession to monitor this important issue. Future policy development should consider eliminating inconsistencies related to acting on impaired nursing practice and identification of strategies to improve quality of life for nursing students and quality of care for the public.

References

American Association of Colleges of Nursing (AACN). (1998). *Substance abuse statement:*

    Policy and guidelines for prevention and management of substance abuse in the nursing

    education community. Retrieved from http://www.aacn.nche.edu/publications/position/

    substance-abuse-policy-and-guidelines

American Nurses Association (ANA). (2001). *Code of ethics for nurses with interpretive*

    statements. Washington, DC: Author.

American Nurses Association (ANA) House of Delegates. (2002). *The profession's response to*

    the problem of addictions and psychiatric disorders in nursing: Action report. Retrieved

    from http://ana.nursingworld.org/MainMenuCategories/ThePracticeofProfessional

    Nursing/workforce/ImpairedNurse/Response.aspx

American Psychiatric Association (APA). (2013). *Diagnostic and statistical manual of mental*

    disorders (5th ed.). Arlington, VA: American Psychiatric Publishing.

American Psychiatric Association (APA). (2013). Substance-related and addictive disorders.

    Retrieved from http://www.dsm5.org/Documents/Substance%20Use%20Disorder

    %20Fact%20Sheet.pdf

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework.

    International Journal of Social Research Methodology, 8(1), 19-32.

Babor, T.F., McRee, B.G., Kassebaum, P.A., Grimaldi, P.L., Ahmed, K., & Bray, J. (2007).

    Screening, brief intervention, and referral to treatment (SBIRT): Toward a public health

    approach to the management of substance abuse. *Substance Abuse*, *28*, 7-30. doi:

    10.1300/J465v28n03_03

Davis, K., Drey, N., & Gould, D. (2009). What are scoping studies? A review of the nursing literature. *International Journal of Nursing Studies, 46*, 1386-1400.

Haack, M. R., & Yocom, C. J. (2002). State policies and nurses with substance use disorders. *Journal of Nursing Scholarship, 34*(1), 89-94.

Harris, S., Sherritt, L., Van Hook, S., Wechsler, H., & Knight, J. R. (2010). Alcohol policy enforcement and changes in student drinking rates in a statewide public college system: A follow-up study. *Substance Abuse Treatment, Prevention, and Policy, (5)*18, 1-11.

Levac, D., Colquhoun, H., & O'Brien, K. (2010). Scoping studies: Advancing the methodology. *Implementation Science, 5*(69), 1-9.

Milstead, J. A. (2013). *Health policy and politics: A nurse's guide* (fourth ed.). Burlington, MA: Jones & Bartlett Learning, LLC.

Monroe, T., & Pearson, F. (2009). Treating nurses and student nurses with chemical dependency: Revising policy in the United States for the 21st century. *International Journal of Mental Health and Addiction, 7*, 530-540.

National Council of State Boards of Nursing (NCSBN). (2011a). Substance use disorder in nursing. Retrieved from https://www.ncsbn.org/SUDN_10.pdf

National Council of State Boards of Nursing (NCSBN). (2011b). What you need to know about nursing licensure and boards of nursing. Retrieved from https://www.ncsbn.org/Nursing_Licensure.pdf

National Council of State Boards of Nursing (NCSBN). (2012a). Differences between BON and approval and accreditation. Retrieved from https://www.ncsbn.org/Differences_between _BON_approval_and_accreditation.pdf

National Council of State Boards of Nursing (NCSBN). (2012b). The 2011 uniform licensure

requirements. Retrieved from https://www.ncsbn.org/12_ULR_table_adopted.pdf

National Council of State Boards of Nursing (NCSBN). (2014). Nurse Practice Act toolkit.

Retrieved from https://www.ncsbn.org/4253.htm

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2007). What colleges need to

know now: An update on college drinking research. (NIH Publication No. 07-5010).

Retrieved from http://www.collegedrinking prevention.gov/1College_Bulletin-

508_361C4E.pdf

National Student Nurses Association (NSNA). (2001). *National student nurses' association,*

inc.code of academic and clinical conduct. Retrieved from http://www.nsna.org/Portals/

0/Skins/NSNA/pdf/pubs_code_of_ac.pdf

Nurse Practice Act, AL Code § 610-X-3-.02 (2012).

Nurse Practice Act, CA Code § 1428.6 (2010).

Nurse Practice Act, Guam Code § 6431 (1997).

Nurse Practice Act, IN Code § 848 IAC 1-2-17 (2007).

Nurse Practice Act, LA Code § 3419 (2014).

Nurse Practice Act, LA Code §921 (2010).

Nurse Practice Act, MD Code § 8-205.1 (2013).

Nurse Practice Act, ME Code §02-380-07 (2013).

Nurse Practice Act, MN Code § 148.261 (2012).

Nurse Practice Act, NC Code § 21NCAC 36.0320 (2006).

Nurse Practice Act, NE Code § 97-012.06 (2006).

Nurse Practice Act, OH Code § 4723-5 (2014).

Nurse Practice Act, OR Code § 851-031-0007 (2007).

Nurse Practice Act, PA Code § 21.111 (2005).

Nurse Practice Act, SC Code § 33-5-1365 (2006).

Nurse Practice Act, SD Code § 36-9-49 (2005).

Nurse Practice Act, TN Code, 1000-01-.13 (2011).

Nurse Practice Act, TX Code §215.8. (2012).

Nurse Practice Act, UT Code § R156-31b-603 (2013).

Nurse Practice Act, VA Code § 18VAC90-20-96 (2014).

Nurse Practice Act, WV Code § 19-1-12 (2009).

Nurse Practice Act, WV Code § 19-3-15 (2007).

Pierce, C. S. (2001). Faculty forum. Implications of chemically impaired students in clinical settings. *Journal of Nursing Education, 40*(9), 422-425.

Sisney, K. F. (1992). Intervention: A strategy to help chemically dependent students. *Nurse Educator, 17*(1), 28-29.

Spier, B. E., Matthews, J. T., Jack, L., Lever, J., McHaffie, E. J., & Tate, J. (2000). Impaired student performance in the clinical setting. A constructive approach. *Nurse Educator, 25*(1), 38-42.

Sullivan, E. J., & Handley, S. M. (1992). Alcohol and drug abuse in nurses. *Annual Review of Nursing Research, 10*, 113-125.

Table 1. Identified areas within the NPAs/Rules that refer/pertain to nursing students.

State or Territory	Background checks required and/or denial for licensure re: alcohol/drugs	Nursing education: student services, curriculum, student records	Student disciplinary actions and/or medical exam	ATD programs offered to students	State or Territory	Background checks required and/or denial for licensure re: alcohol/drugs	Nursing education: student services, curriculum, student records	Student disciplinary actions and/or medical exam	ATD programs offered to students
Alabama	•				Montana	•	•		
Alaska	•				Nebraska	•	•		
Arizona	•	•			Nevada	•	•		
Arkansas	•	•			New Hampshire	•			
California		•			New Jersey	•	•		
Colorado		•			New Mexico	•	•		
Connecticut		•			New York		•		
Delaware	•	•			North Carolina	•	•		•
District of Columbia	•				North Dakota	•	•		
Florida					N. Mariana Islands	•			
Georgia	•				Ohio	•	•		
Guam	•	•			Oklahoma	•			
Hawaii	•				Oregon	•	•	•	
Idaho	•				Pennsylvania	•	•	•	
Illinois	•				Rhode Island	•	•		
Indiana		•			South Carolina	•	•	•	
Iowa	•	•			South Dakota	•	•	•	
Kansas	•	•			Tennessee	•	•		
Kentucky		•			Texas	•	•	•	
Louisiana	•		•	•	Utah	•	•		
Maine		•	•		Vermont	•	•		
Maryland		•	•		Virginia	•	•		
Massachusetts					Washington	•	•		
Michigan		•			West Virginia	•		•	•
Minnesota	•	•	•		Wisconsin	•	•		
Mississippi	•	•			Wyoming	•	•		
Missouri		•							

MANUSCRIPT III – Alcohol Use, Misuse, and Abuse Among Nursing Students: A Photovoice Study

Abstract

Background

Rates and frequencies of alcohol consumption remain unknown among nursing students, and risk and protective factors associated with alcohol misuse are poorly understood. While nursing curricula often lack content on chemically impaired nurses, addictions to alcohol and other drugs are reported to begin prior to or during nursing education. Professional ramifications and patient safety concerns exist, which warrant further examination of alcohol behaviors in the nursing student population.

Methods

We used a qualitative design employing participatory action research. The Photovoice method included four focus groups, with data from nine undergraduate nursing students. The method allowed us to obtain the participants' thoughts and perceptions on alcohol use, misuse and abuse through self-expression and group advocacy. Photovoice empowered the nursing students to act as participant researchers, collecting and analyzing qualitative data, as experts on this topic.

Results

Data reflected the following key issues: stress, environmental influences, societal acceptance and availability of alcohol. Participants identified the following problems that placed them at risk for alcohol misuse: lack of addiction and alcohol education within the nursing curriculum; expectations of the nursing program that increased stress and anxiety; unhealthy habits, social isolation, and individual influences; peer influence and the college experience; and ineffective and unenforced campus policies. Protective factors included: university policies; life experiences; nursing program policies, responsibilities, peer influences and perceived reputation.

Conclusion

Baccalaureate nursing students had a platform to express their perceptions of risk and protective factors associated with their alcohol behaviors, which allowed them to suggest potential solutions to their identified issues. This action research informed a dialogue with colleagues regarding nursing students' stressors and the professional ramifications that result. Recommendations for future work include investigation of the expressed social isolation from university peers, and its effects on their alcohol consumption behaviors, and increase alcohol education with emphasis on adaptive coping strategies in a stressful professional role in BSN curricula.

Introduction

An expectation exists on many campuses that students feel the need to consume alcohol for successful integration into college society (NIAAA, 2002). Many students are influenced by societal factors and place themselves at risk for alcohol-related injuries and decreased well-being each year as they try to assimilate into what they believe to be a socially acceptable practice (Monti, Tevyaw, & Borsari, 2004; NIAAA, 2012). Attitudes towards alcohol consumption are often influenced by the students' environment and attitudes of their peers. Additionally, a biological predisposition to alcohol misuse and abuse may be found in some students, and freshmen are often prone to impulsive behaviors due to the immaturity of their brains during this stage of development (NIAAA, 2012). Binge drinking episodes tend to decline for some students with maturity, while others maintain moderate to heavy alcohol consumption patterns after college, which may lead to alcohol dependence later in life (Jackson, Sher, Gotham, & Wood, 2001; Monti et al., 2004). Psychological factors, such as depression and anxiety are commonly linked to increased stress levels during this phase of life. Students residing on campus are often away from home for the first time, no longer under parental supervision and may begin to use alcohol as a coping mechanism (NIAAA, 2002, 2006).

College students who drink alcohol excessively are at higher risk for the following associated consequences: higher rates of assaults, sexual assault, arrests, vandalism, unintentional injuries, drunk driving, suicide, personal property damages, and poor academic outcomes (NIAAA, 2002). These associated detrimental health effects of alcohol misuse and abuse include heart, liver, and pancreatic damage, mood and behavioral changes, cancer, cardiovascular disease, and decreased immune response (NIAAA, 2012). These behaviors jeopardize both the students' health and safety, and that of their peers and those in the

surrounding campus communities. Despite many efforts made by colleges, local and state governments to reduce college drinking, these issues are persistent and costly (NIAAA, 2002).

Risky drinking behavior and substance abuse in nursing has been noted to begin during or prior to college, in "traditional students", and considered the early adult phase (18-24 years) (Coleman et al., 1997; Jackson et al., 2001). While nursing students (NSs) are included in the traditional college population, and may encounter the same environmental, biological and psychological influences as other students, additional risk factors include exposure to intense interpersonal relationships, life and death situations, and irregular clinical schedules (Coleman et al., 1997). Recent prevalence data is limited, but older citations suggested NSs are weekly drinkers, consuming more alcohol than their female non-nursing university counterparts (Haack & Harford, 1984), with burnout rates comparable to registered nurses in practice (Haack, 1988). More recently, Gnadt (2006) reported alcohol was the most frequently used substance (82%) among NSs, with 11% combining alcohol with illegal drugs, and 7% combining medications for non-medical purposes with alcohol and other drugs. Prevalence of alcohol use was calculated using frequencies and percentages and reported to be 24% among NSs, which is lower than non-religious based schools. Marion, Fuller, Johnson, Michels, & Diniz (1996) reported the potential for alcoholism was relatively high at 21%, acknowledging that some students were already considered alcoholics.

Data about NSs and alcohol misuse (AM) are founded on studies conducted primarily 20-30 years ago and may not be reflective of the current population. Additionally, AM among NSs and new graduates requires consideration of several professional, ethical and legal ramifications not found in other academic majors (ANA, 2001; 2003). For example, the American Nurses Association (2001) has established safe practice guidelines to address impaired nursing practice

that includes addiction services, disciplinary action if necessary, and employee and peer assistance. However, most U.S. Boards of Nursing have no regulatory oversight of NSs practice, presenting a gap for safe practice guidelines.

This study examined the perceptions of NSs regarding AM, through their engagement as participant investigators. Using Photovoice as a method we: (a) characterized alcohol behaviors among NSs, including both personal and peer behaviors; (b) defined ecological risk and protective factors associated with alcohol behaviors among NSs; and (c) identified the influence of university substance use policies regarding alcohol consumption and other substances. The following research question guided this exploration: What are the behaviors and influencing factors that NSs perceive and associate with alcohol use, misuse and abuse during their college years?

Literature addressing alcohol behaviors among NSs is limited to quantitative, or mixed methods approaches. Qualitative methods were used in this study to illuminate the perceptions of alcohol behaviors among NSs who are attending a four-year institution. The Social Ecological Model (SEM) theoretical framework and multilevel approach has been used to identify and better understand the factors that affect behavior (Fleury & Lee, 2006) by understanding how people interact within their environment (Sallis, Owen & Fisher, 2008). Guided by the lens of the SEM framework, this paper identified multilevel factors: intrapersonal, interpersonal, institutional, community and public policy (McLeroy, Bibeau, Steckler, & Glanz., 1988) associated with alcohol behaviors in the university setting (ACHA, 2012) categorizing risk and protective factors.

Methods

Overview

Community based participatory research (CBPR) is increasingly used in behavioral health research to identify and develop interventions based on multilevel ecological factors that include community and individual level characteristics (Bogart & Uyeda, 2009). Researchers and community members work together as research partners during every stage of the research process, from research question development, to dissemination of findings, to community designed interventions (Bogart & Uyeda, 2009; Israel, Eng, Schulz, & Parker, 2005). NSs approached the principal investigator (PI) within this setting and suggested studying their population to gain a better understanding of their particular experiences with alcohol misuse and abuse by using the "come along" method for ethnography studies (Fetterman, 2010). Potential ethical issues related to studying this topic, in this population, and at this institution, necessitated an alternative method. We decided to use Photovoice, a CBPR method that employs photo elicitation methods to engage community members in participatory action research (Wang & Burris, 1997). The PI currently instructs and advises undergraduate NSs, and is immersed in their academic experiences, and often their personal lives due to the advisement role. The PI's mentor, a nurse scientist and alcohol researcher, studies alcohol screening and brief intervention in primary care. Additional research team members provided expertise in CBPR, and risky behaviors and substance use and abuse.

The three goals of Photovoice are reflected in this study as follows: 1) The participants' ability to document their perceived environmental risks and protective factors through the use of photography by capturing images of their reality regarding alcohol use, misuse and abuse during their college years; 2) NS stakeholders shared and discussed their images among the group to

begin important dialogue regarding their strengths and issues; 3) Findings were disseminated and used to elicit changes and inform policy makers, both university and nursing leaders (policy makers) on salient issues related to alcohol in this population (Wang & Burris, 1994; 1997). This strategy also empowered NSs to act as participant researchers, collecting and analyzing qualitative data, as experts on this topic (Goodhart et al., 2008). The Photovoice method has been used in youth alcohol studies, in addition to the university setting (Goodhart et al., 2006; PHE, 2009).

Participants/Settings

NSs from a large public university located in a western suburb of Philadelphia, PA were recruited to participate in this study. The university is considered a "dry" campus, which is the norm for many public and private schools in Pennsylvania. Among the nearly 14, 000 undergraduates, 61% are female and 39% are male. In addition, 81% are white and 18% are minority students (African American and Hispanic). Typically 40-60 traditional NSs are among the 2400 students that graduate each year. In total, students come from 26 different states and 64 different countries; however the majority of students hail from Pennsylvania, Delaware, New Jersey, and Maryland.

After receiving IRB approval, a purposive sample for maximum variation of up to 12 senior level BSN nursing students over the age of 21 were recruited to participate. NSs were invited to participate via peer invitation, classroom announcements, and the university's online learning management system, Desire to Learn (D2L) by the PI and two research assistants (RAs). Criteria for participation included: current senior level traditional Bachelor of Science in Nursing (BSN) students, age 21-25 years who owned a camera phone. No NSs under the PI's direct supervision as a faculty member were included to prevent adverse influence, coercion, or risk to participants.

Participants were screened to determine eligibility by the PI, and written consent was obtained from all NSs. Participants completed a demographics survey (pseudonyms, age, year in school, gender, and race/ethnicity). In addition, they were screened with the AUDIT-C, which is a 3-item alcohol screen designed to detect alcohol misuse in a multicultural adult sample, and considered the most often used instrument in the college population (DeMartini & Carey, 2012; Fleming, 2002, SAMSHA, 2014). It is highly reliable, with demonstrated sensitivity and specificity (SAMSHA, 2014), recommended for use in a campus wide sample of college students by the NIAAA (2007) due to its ability to identify hazardous drinkers or those with active alcohol use disorders (cut off scores >4 in men and >3 in women are considered positive) (SAMSHA, 2014). Gift cards ($50 for participants and $100 for RAs) were issued to those who participated in this study.

Photovoice training

Prior to data collection, the PI and RAs trained all participants on using the Photovoice method to create photographs representing their perceptions of factors affecting alcohol consumption behaviors. Participants received training on ethical standards including protecting a person's privacy, not capturing images that could harm persons, including illegal activities. To address these concerns, they were instructed to create representational images that portray the same meaning via the use of inanimate objects as has been done in previous Photovoice studies (Goodhart et al., 2006); and to obtain permission, when appropriate, prior to taking a person's picture for research purposes. Since many students own camera phones, taking pictures via camera phones has become a societal norm. Thus, NSs were asked to use their camera phones to decrease reactivity among subjects being photographed.

Four focus group meetings were conducted that began with Photovoice training and brainstorming, discussion of photographic findings, issue identification and priority setting, to dissemination of findings. Group meetings were held in classrooms on campus and audiotaped for transcription. Several semi-structured, open-ended discussion questions were used to help facilitate group discussion during the brainstorming meeting on potential photo "assignments" to address the study aims. These questions were based on this campus' substance use data, and provided focus on both positive and negative influencing factors regarding AM during their college years. During the second group meeting, each NS presented their individual photographic findings and explained how the photos reflected their perceived thoughts, feelings or experiences, which was followed by a group discussion of the presented findings.

The third group meeting focused on theme identification of the group's perceived risk and protective factors, and where they felt the identified themes should be placed within the SEM framework. The group also brainstormed on how they wanted to present their findings to peers and faculty during the fourth group meeting, and decided to use a PowerPoint presentation and photobooks to disseminate their findings. The NSs invited faculty and peers to attend a luncheon (fourth group meeting) where they would present their findings. Each NS presented an identified group theme to faculty and peers via PowerPoint presentation during this meeting, and time was allotted at the end for questions and discussion among faculty and students, and they circulated the photobooks of their findings to faculty for further contemplation. Specific emphasis was placed upon their personal behaviors related to alcohol and influencing factors, social interactions, their environmental influences and related policies throughout this process.

Data collection

Data collection began during the first meeting once Photovoice training was complete. Data sources included group discussions, and photos and narratives generated by the individual participants during photo assignments. The three subsequent group meetings provided a forum to discuss: topics/issues related to alcohol misuse among this population; photographs taken by NSs that express their perceived risk and protective factors; theme identification among group members; and to disseminate findings to peers and faculty while focusing on perceived primary concerns for nursing students regarding alcohol consumption.

Data analysis

Study participants used inductive qualitative analyses (Strauss & Corbin, 1998) during group meetings to identify their top three perceived issues, and deductive analyses to identify risk and protective factors using their photographs and narratives, and group reflections. This approach to data analysis was based upon data that has been collected individually, then selected and analyzed collectively as a group to provide insight into their agreed upon perceptions of alcohol behaviors found in their daily lives as NS. The top three perceived issues were ranked via a group survey completed in D2L after group meeting #2, which provided corresponding images and brief narratives providing explanations as to why these are issues. In addition, study participants completed a group coding exercise and thematic analysis during group meeting #3 led by the RAs, without the PI, to ensure trustworthiness of findings. This iterative approach to thematic analysis gave study participants the opportunity to expand or modify themes until all participants agreed, or no new themes were apparent and data saturation was met (Hesse-Biber & Leavy, 2011).

Thematic content analysis was also completed by the in NVivo software (QSR International, Pty., Doncaster, Victoria, Australia), using all data including images, individual and group reflections, and verbatim transcripts of group meetings. Data were placed into similar categories by comparing and contrasting until initial codes were formed. These codes were reduced by identifying emerging themes based on recurrent patterns and significant statements found within the data that answered the study question (Hesse-Biber & Leavy, 2011). Interpretative insight into specific moments, emotions, and general reflections that assisted with the context of thematic meanings, and provided an audit trail of events. A deductive approach was then used to assist with framing risk and protective factor findings into the SEM levels. The PI's dissertation chair, a qualitative expert, reviewed all study data for credibility, confirmability and trustworthiness (Shenton, 2004). We used immersion and crystallization to ask questions of the data together, reviewing the student's findings to ensure they were sound (Borkan, 1999). Identified themes were then presented by the PI to study participants to ensure correct interpretation of their perceptions.

Results

Demographics and AUDIT-C results

Participant characteristics along with AUDIT-C results are shown in Table 1. All participants were female, white (one identified herself as white/Hispanic, and the mean age was 21.5 years (21 minimum and 22 maximum). Among the nine participants, 67% were considered positive for hazardous drinking or active alcohol use disorder. The sample size remained relatively small, so the researchers had adequate time to collect and analyze data. Once nine NSs meeting inclusion criteria were identified, the study was closed to further recruitment due to the necessity to complete the data collection and analysis.

Identified issues

Participants identified their top three issues as (1) stress, (2) environmental influences (lifestyle, lack of healthy habits) and (3) societal acceptance and convenience of alcohol. Photographic documentation and descriptive narratives for each of these perceived issues were provided and agreed upon by all participants. Images included stacks of books, long to-do lists, and use of prescription drugs for coping with the stress of nursing education. Environmental influences were depicted through images and narratives speaking to their lack of sleep, exercise, and good nutrition. They stressed how important each was, but stated they could not find the time to maintain all three on a regular basis. Images often showed books covering running shoes, glasses of wine or beer next to books during study sessions, and a screen shot of a student's smart phone demonstrating how often students work through the night to complete assignments. Societal acceptance images depicted the availability of alcohol in their environment including their off-campus residences, restaurants, parties and bars (See figure 1).

Identified risk factors

The students identified the following perceived risk factors: lack of finances; nursing major; social environment and Type A personality (highly competitive, perfectionist, taking on more than time permits, constant sense of urgency, easily frustrated with life's interruptions (Friedman & Ulmer, 1985). After further data analysis by the researchers, the themes were refined and the following risk factors were identified: lack of addiction and alcohol education; nursing program increased stress and anxiety; unhealthy habits, social isolation, individual influences; peer influence and the college experience; and ineffective and unenforced campus policies (See table 2).

Identified protective factors

The NSs identified the following perceived protective factors: perceived reputation; physical environment; healthy lifestyles and activities; and nursing responsibilities. The researchers refined the themes and identified the following protective factors: university policies; life experiences; and nursing program policies, responsibilities, peer influences and perceived reputation (See table 3).

SEM levels

Risk and protective factors were categorized according to the multiple levels of influence found in the SEM. The multifaceted view of campus ecology in this setting, and within this population of NSs, provides insight into their alcohol behaviors, determined by the factors outlined in Table 4.

Faculty reaction

Noteworthy was the reaction from faculty, which was generally positive and supportive. Substance use within the nursing profession had recently been added to the curriculum in this setting, but this content did not include nursing students or provide self-reflective insights. As a result, RAs were asked to present the findings to the junior classes informing them of risk and protective factors, and the need for action and behavioral changes. Additionally, faculty recommended peer mentorship, and a stress management/healthy alternatives seminar annually to provide the nursing students with additional support.

One faculty member noted that very little changed over the past thirty years regarding the stress, expectations and responsibility of being a NS. Access to alcohol had changed, but the problem still exists. Students no longer meet at the student union pub for drinks at lunch. Now, students state they meet off campus and as early as 10am to drink away the stress and anxiety.

Faculty agreed that their nursing program experience was very similar to the current NS's experience, and the stressors have not changed much, acknowledging this as a norm and to be expected.

Discussion

The Task Force on College Drinking (NIAAA, 2002b) identified multiple risk factors associated with increased alcohol consumption during the "traditional" college years, and in this study, all of those risk factors were mentioned during group sessions in nursing students 21 to 25 years of age. We will focus on the most salient risk factors in the discussion below.

Risk factors of nursing students related to alcohol misuse

Transition within college environments

This study found indoctrination by upperclassmen, beginning in the freshman year, into campus culture (including alcohol and other drug use) during the first weeks of freshmen year to be a known factor (NIAAA, 2002b; NIAAA, 2013). Nursing students have very limited contact with senior nursing students during this time. Thus, any preventive strategies that could be shared are not. Students' transition into freshman year is often difficult, with feelings of being unprepared for college (NIAAA, 2002a; NIAAA, 2013). Socialized to thinking that drinking is the norm and necessary to "fit in," they learned to cope with daily stressors.

They felt their "dry-campus" and associated security procedures and campus policies placed them at higher risk for injury**,** and did not prevent underage or binge drinking on campus. They were taught by upperclassmen how to smuggle alcohol into dorms, and how to hide off campus, often wandering the local streets under the influence of alcohol until 4 am when campus security stopped checking students entering their dorms. Students felt it was easy to obtain and smuggle alcohol into their dorms, which were rarely checked for alcohol. While dry campuses

may have lower rates of heavy episodic drinking, students still encounter alcohol-associated problems and binge drinking as much as students that attend "wet" campuses (Wechsler, Lee, Gledhill-Hoyt & Nelson, 2001). Lack of non-alcohol related activities is another known risk factor (NIAAA, 2002b); some would participate in these activities if they retained the ability to adequately socialize with peers, and the associated stigma of this activity was removed. Though the campus in this study offers non-alcohol activities, participants were deterred due to low attendance by their peers, and increased attendance by mandated students from Greek affiliations, and those who received alcohol violations.

Financial issues

The necessity to work full or part-time to remain in the nursing program effects students' work, school and life balance often increasing stress. Thus, students search for coping mechanisms, including the combination of drugs (prescription and illegal) and alcohol (SAMSHA, 2012). The average freshman does not have a mature brain (NIAAA, 2002b), and as this study found, many engage in risky behaviors to "survive", often mixing anti-anxiety and anti-depressants with alcohol searching for "relief", while maintaining the social norm of drinking and socializing. NSs also have daily access to inexpensive alcohol further compounding matters, despite community partnerships that discourage mass media campaigns targeting college students (NIAAA, 2002b) with cheap food and drinks. NSs described being bombarded by advertisements and peer invitations advertising alcohol within social media platforms and also found inexpensive alcohol was easily accessible, locally. The participants noted that alcohol is everywhere in their environment, they are either consuming it or are subjected to its' secondhand consequences whether it be a patient, friend, family member or student peer.

Stress

Stress was the risk factor most associated with alcohol use for nursing students. As a legal substance for those 21 and older, it is socially accepted within the university and healthcare settings (work or clinical experience). The participants noted peer and nursing influence to use alcohol as a coping mechanism after a "bad day". They also noted lack of nursing education regarding professional addictions, and were unaware of risk factors associated with alcohol misuse. Non-nursing peers are not typically exposed to professional stressors including life and death situations and intense interpersonal contact with patients and families (Coleman et al., 1997).

The participants viewed these situations as additional stressors beyond the typical college experience, and expressed feelings of isolation from university peers who do not understand the additional responsibility they have as nursing majors. Due to this perceived isolation, they relied on their nursing peers for support. They expressed that they often felt isolated from their university peers, who "gave up" on them, because of their hectic nursing schedules, and inability to discuss difficult days. Due to privacy laws, NSs are often unable to discuss their clinical day with patients. The participants expressed disgust with university peers' schedules, and felt little empathy for those that rise "at noon, stay out all night and barely study", but still pass their courses. NSs appear to be disconnected from their university peers at times. They are unable to socialize during most evenings with university peers due to the rigors of a nursing curriculum that includes early mornings at clinical agencies, and late nights studying for multiple exams and writing papers. Even if they could socialize with university peers, they have been told they do not want to hear about "nursing" (illness and death). Their non-nursing peers find their experiences to be depressing and will change the subject.

Participants also stated they would not seek assistance from university trained peer mentors, or campus counselors due to fear of admitting an addiction which is not uncommon (NIAAA, 2007). In addition, the NSs felt that university counselors and peer mentors lack understanding of their nursing experiences, and would not be capable of offering assistance or understanding to them or what they view as important issues. Participants also discussed the need to be selfless and concentrate their energy on caring for others rather than themselves, which may be related to their choice of nursing as a career. They often neglected maintenance of healthy habits including adequate nutrition, exercise and sleep, known risk factors for substance abuse within nursing (Skinner, 1993).

Savage, Dyehouse, Marcus, & Lindell (2014) found BSN curriculum contains content about AM throughout the lifespan, but most content still resides within the psychiatric/mental health courses. Actual content hours devoted to this study are often limited, and this has barely changed in 30 years. This alcohol education gap is concerning, and consequences include the inability of nurses to identify, screen or educate patients who misuse or abuse alcohol (Savage et al., 2014). NSs and nurses also lack education on substance abuse within the profession, and nurses are found to self-diagnose, treat and accept drugs are for healing, and feel invulnerable to illness such as addiction (Darbro & Malliarakis, 2012). Substance abuse is often an accepted coping mechanism, and nurses rationalize about their ability to work under chemical influences. Darbro and Malliarakis (2012) reported this "lack of education on the addictive process and its signs and symptoms remains one of the more profound and overlooked risk factors for nurses" (pg. 45), and "contributes to the negative stereotypes" of professional addiction (pg. 46).

Protective factors of nursing students related to alcohol misuse

Protection against AM in college varies depending on the institution (policies, size,

location and structure), the individual (beliefs, peer influence, genetics, and personality), and access to substances (outlet density and affordability) (Clapp, Shillington, & Segars, 2000; NIAAA, 2002b; Wechsler, Kuo, Lee, & Dowdall, 2000). Our study's findings regarding public policies on alcohol advertisements (limited advertisements for drink specials), campus safety and lack of consistent enforcement of policies, and individual beliefs and experiences support the need for effective institutional policies and individual awareness of risk. However, enforcement of nursing program policy, and individual expectations of this nursing program were viewed as protective, despite the risk factors associated with its rigors. Zero-tolerance of substance abuse, yearly drug screening and criminal background checks deter NSs from participating in high risk behaviors, because they understand these behaviors are considered unacceptable, particularly in nursing.

Participation in criminal acts may deem them ineligible to continue in the program, and receive a license upon graduation without seeking assistance. NSs are introduced to the *Code of Ethics for Nursing* (2001) early in the program, and often begin to incorporate its principles into their behavior and beliefs. Most substance use studies, prior to the one reported here, have focused on risk factors and NSs' consumption patterns, rather than identifying NSs' protective factors. Further investigation is warranted in this area as the data remains limited.

The social ecological model

Multilevel evaluation during data collection and analysis provided perspective regarding factors at each level of the ecological model affecting AM in our NS population. This comprehensive approach provided participants with the opportunity to: 1) identify the determinants of health related to their alcohol behaviors at each level of the framework, and 2)

present suggestions to faculty for specific interventions, placing emphasis on each level within this setting, and identifying the individuals who can assist with these changes.

No single factor contributes solely to student alcohol consumption, rather, multiple factors influence rate and frequency of alcohol use (NIAAA, 2002a). According to McLeroy et al., (1988), behavioral change can be initiated if "interventions are based on beliefs, understandings, and theories of the determinants of behavior" (p. 355). Thus, this framework, along with the methods assisted with identifying NSs' beliefs, why they participate in specific behaviors, where and how to intervene, and where further research is still needed. For example, further education on nursing addictions is critical for these students, as they embark in professional responsibilities. Creating a NS peer mentorship program, and alcohol policies requiring frequent screening to detect AM and abuse were student suggestions that can be implemented at the institutional and national levels if empirical evidence exists to support their use. The feasibility of this approach is further strengthened by student ownership of interventions and the institutional acceptance and implementation of suggested strategies (NIAAA, 2002a; NIAAA, 2002b).

Intervention research is needed to implement suggested strategies and evaluate nursing program outcomes. Changes in risk and protective factors and monitoring for emerging factors should also be incorporated into research designs. Further studies examining when substance abuse behaviors begin would be beneficial. Studies examining other campus settings and NS populations might supply additional evidence supporting potential changes to nursing curricula and the implementation of support systems nationwide. Insight into the substance use/abuse issue within the nursing profession can begin by identifying high risk behaviors early on that may stem from poor coping mechanisms that begin in school.

Limitations

Study findings pertain to a cross-section in time and cannot be generalized, however qualitative studies are not intended to be generalized, but to identify further areas of study, and generate new hypotheses. Due to ethical and legal implications associated with alcohol research in this academic setting, students under the legal drinking age were not permitted to participate in this study. However, NSs over 21 years were invited to participate, which provided insight into NSs' perceptions of alcohol consumption, including those engaged in underage drinking and drug use over the course of their four years at college.

Conclusion

The results are notable because this is the first known qualitative study conducted in this population. This study provided a small group of baccalaureate NSs with a platform to express their perceptions of the risk and protective factors associated with their alcohol behaviors. It also allowed them to become change agents for themselves by providing potential solutions to their identified issues. Photovoice provided an excellent format for faculty and students to begin a dialogue among colleagues regarding the stressors nursing students face, and the potential ramifications to the nursing profession if action is not taken to address these issues.

Serious professional, ethical and legal implications exist related to maladaptive alcohol behaviors in nurses and NSs (ANA, 2001, 2003), and substance use disorder is a recent priority for professional nursing regulatory groups (NCSBN, 2013). Due to the consistent rate of substance use among nurses, and the findings of this study, further investigation is needed to gain better understanding of specific risks associated with NSs that university peers do not encounter, and how these behaviors may affect them throughout their nursing career. Increased

education in BSN programs on alcohol use, misuse and abuse is recommended along with an emphasis on adaptive coping strategies in a stressful professional role.

Lastly, this research was funded by the Pennsylvania Higher Education Nursing School Association (PHENSA). Study findings will be disseminated to all nursing programs in the state of Pennsylvania (PA) during an upcoming annual meeting. This study has the potential to begin a very important dialogue among deans and nursing faculty, the PA State Nurses' Association, and the PA State Board of Nursing, leveraging additional resources from those persons and organizations to continue this research in the future. While Photovoice proved to be an effective method to research this issue within this population and setting, the results cannot be generalized. Therefore, additional research is needed to obtain further insight into this issue, and in various settings within PA to assist with the creation of a behavioral health model designed to prevent alcohol misuse and abuse in NSs in PA, and for potential use in other NSs within the U.S.

References

American College Health Association. (2012). *Healthy Campus 2020.* Retrieved from

http://www.acha.org/HealthyCampus/ecological_model.cfm

American Nurses Association (2001). *Code of ethics for nurses with interpretive statements*.

Silver Spring, MD: Author.

American Nurses Association (2003). *Nursing's social policy statement* (2nd ed.). Silver Spring,

MD: Author.

Bogart, L. M., & Uyeda, K. (2009). Community-based participatory research: Partnering with

communities for effective and sustainable behavioral health interventions. *Health

Psychology, 28*(4) 391-393.

Borkan J. (1999). Immersion/Crystallization. In B. F. Crabtree & W. L. Miller (Eds.), *Doing

Qualitative Research* (177-194). Thousand Oaks: Sage Publications, Inc.

Centers for Disease Control. (2012). Quick facts for students. Retrieved from

http://www.cdc.gov/Features/CollegeHealth/

Coleman, E. A., Honeycutt, G., Ogden, B., McMillan, D. E., O'Sullivan, P. S., Light, K., &

Wingfield, W. (1997). Assessing substance abuse among health care students and the

efficacy of educational interventions. *Journal of Professional Nursing, 13*(1), 28-37.

Clapp, J. D, Shillington, A. M., & Segars, L. B. (2000). Deconstructing contexts of binge

drinking among college students. *American Journal of Drug and Alcohol Abuse

26*(1):139–154.

Darbro, N., & Malliarakis, K. D. (2012). Substance abuse: Risks factors and protective factors.

Journal of Nursing Regulation, 3(1), 44-48.

DeMartini, K. S., & Carey, K. B. (2012). Optimizing the use of the AUDIT for alcohol screening

in college students. *Psychological Assessment,* 1-10.

Fetterman, D. M. (2010). *Ethnography: Step-by-step*: SAGE Publications.

Fleming, M. F. (2002). Clinical protocols to reduce high risk drinking in college students: The

college drinking prevention curriculum for health care providers. Retrieved from

http://www.collegedrinkingprevention.gov/ media/FlemingManual.pdf

Fleury, J. & Lee, S. M. (2006). The social ecological model and physical activity in African

American women. *American Journal of Community Psychology, 37*(1/2), 129-140.

Friedman, M., & Ulmer, D. (1985). *Treating type A behavior and your heart.* Fawcett Crest.

Goodhart, F. W., Hsu, J., Baek, J. H., Coleman, A. L., Maresca, F. M., & Miller, M. B. (2006). A

view through a different lens: Photovoice as a tool for student advocacy. *Journal of

American College Health, 55*(1), 53-56.

Hesse-Biber, S. N., & Leavy, P. (2011). *The practice of qualitative research* (2nd ed.). Thousand

Oaks, CA: Sage Publications, Inc.

Israel, B. A., Eng, E., Schulz, A. J., & Parker, E. A. (2005). Methods in community-based

participatory research for health. San Francisco: Jossey-Bass.

Jackson, K. M., Sher, K. J., Gotham, H. J., & Wood, P. K. (2001). Transitioning into and out of

large-effect drinking in young adulthood. *Journal of Abnormal Psychology 110*, 378–

391.

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on

health promotion programs. *Health Education Quarterly, 15*(4), 351-377.

Monti, P. M., Tevyaw, T. O., & Borsari, B. (2004). Drinking among young adults: Screening,

brief intervention, and outcome. *Alcohol Research & Health, 28*(4), 236-244.

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2002a). A call to action:

    Changing the culture of drinking at U.S. colleges. Retrieved from http://www.

    collegedrinkingprevention.gov/media/TaskForceReport.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2002b). High-risk drinking in

    college: What we know and what we need to learn. Retrieved from http://www.college

    drinkingprevention.gov/media/FINALPanel1.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2007). What colleges need to

    know now: An update on college drinking research. Retrieved from

    http://www.collegedrinkingprevention.gov/1College_Bulletin-508_361C4E.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2012). Alcohol's effects on the

    body. Retrieved from http://www.niaaa.nih.gov/alcohol-health/alcohols-effects-body

National Council of State Boards of Nursing. (2013). Substance use disorder in nursing. Video

    retrieved from https://www.ncsbn.org/2106.htm#manual

Public Health England (PHE) Alcohol Learning Resources (2009). Camden alcohol photo voice

    project. Retrieved from http://www.alcohollearningcentre.org.uk/LocalInitiatives/projects

    /projectDetail/?cid=6454

Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. In *health

    behavior and health education: Theory, research, and practice* (4th ed., 564-485). San

    Francisco, CA: Jossey-Bass.

Savage, C., Dyehouse, J., Marcus, M. (2014). Alcohol and health content in nursing

    baccalaureate degree curricula. *Journal of Addictions Nursing, 25*(1), 28–34.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects.

    Education for Information, 22(2), 63-75.

Skinner, K. (1993). The hazards of chemical dependency among nurses. *Journal of Practical Nursing, 43*(4), 8-11.

Strauss, A., & Corbin, J. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory (2nd ed.). Thousand Oaks, CA: Sage.

Substance Abuse and Mental Health Services Administration (SAMSHA). (2014). Stable resource tool kit. AUDIT-C-overview. Retrieved from http://www.integration. samhsa.gov/images/res/tool_auditc.pdf

Wang, C., & Burris, M. A. (1994). Empowerment through photo novella: Portraits of participation. *Health Education & Behavior, 21*(2), 171-186.

Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Education & Behavior, 24*(3), 369-387.

Wechsler, H., Kuo, M., Lee, H., & Dowdall, G. W. (2000). Environmental correlates of underage alcohol use and related problems of college students. *American Journal of Preventive Medicine 19*(1), 24–29.

Wechsler, H., Lee, J. E., Gledhill-Hoyt, J., & Nelson, T. F. (2001). Alcohol use and problems at colleges banning alcohol: Results of a national survey. *Journal of Studies on Alcohol 62*(2), 133-141.

Table 1. Sample demographics and AUDIT-C results.

Participants	(n= 9)	AUDIT-C Results	(n= 9)
Age		How often do you have a drink containing alcohol?	
21	4	Monthly or less	1
22	5	2-4 times a month	2
Year in School		2-3 times a week	6
Senior	9	How many standard drinks containing alcohol do you have on a typical day?	
Gender		1 or 2	9
Female	9	How often do you have six or more drinks on one occasion?	
Race		Never	3
White	9	Less than monthly	2
Ethnicity		Monthly	2
Hispanic	1	Weekly	2
Non-Hispanic	8	Total Scores	
		<3	3
		>3	6

Figure 1. Alcohol Images. This figure is a depiction of the final images selected by SNs to represent their perceived alcohol use/alcohol behaviors.
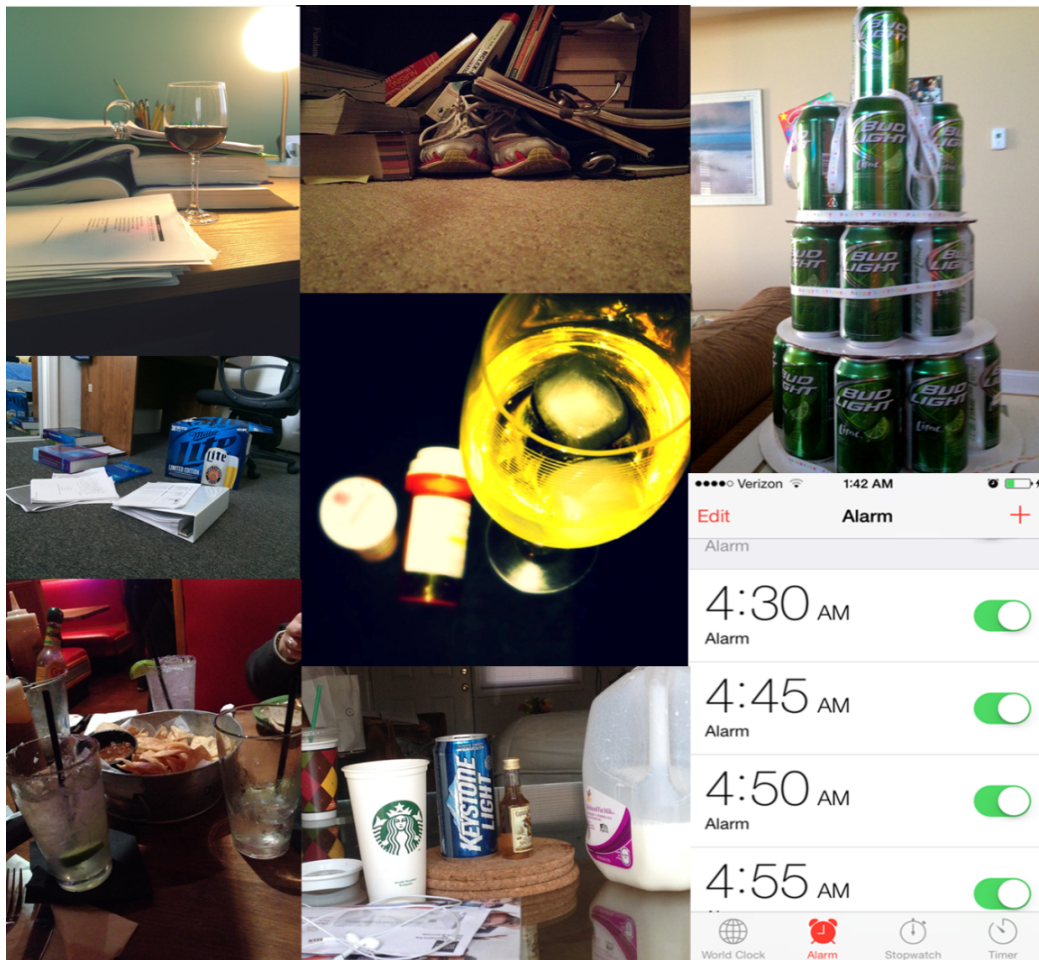
Table 2. Student excerpts regarding risk factors.

Lack of addiction and alcohol education:

"We plan programs like booze news, and of course no one goes, but if you have enough alcohol citations people are sanctioned to go and must sit down with public safety while they tell you to get your life in check, and stop drinking."

"What is the legal amount of alcohol a nurse can have in their system if they go to work? Maybe .08 like the driving limit….I feel like it should be none."

"When we had to go to our Alcohol Anonymous meeting, I didn't drink for a week, but that wasn't until senior year and that's too late."

"We see it in our jobs, but we never actually learn about substance abuse in nursing. Addiction is never taught or geared towards nurses or nursing students, it's geared towards patients' addictions."

"As freshmen they make you do that alcohol course on-line, which was stupid. You're supposed to read and watch videos, but everyone just clicks through it…Then they never reassess your progress, it's just once and done, before you even live on campus."

Nursing Education (increased stress and anxiety, unhealthy habits, social isolation, and individual influences:

"The past four years we sacrificed our health to learn about how to improve the health of others, but I'm unable to care for myself… not exercising, not eating or drinking well, and using alcohol, to cope."

"It's not an odd occurrence for nursing students to mix medications with alcohol to relieve stress. I went on anti-anxiety medications sophomore year because I could no longer physically or mentally deal with nursing education."

"Nursing students are different from other majors, we face a different type of stress from other students - from the crazy amount of work, to the life or death situation we just witnessed that no one in a different major could ever understand."
"Drinking alcohol in our group allows us to spend time with the people who are sharing the same experiences. We don't have the time or energy to create healthy alternatives to drinking."

Peer influence and the college experience:

"Anytime you see college portrayed in media, one thing you always see is some type of drinking. The social environment in college is ruled by use and abuse of alcohol, and we all have a large amount of stress and anxiety, so we drink with each other to cope."

"Alcohol becomes a normal part of social interaction in this environment. In a college town, drinking mass amounts of alcohol is an accepted and respected practice…regardless of legality. If one does not drink, he or she is not seen as cool."

 "Before we even got to college we had some type of experience with alcohol, but once you get to college this unhealthy drinking atmosphere is acceptable all around you."

"Every year a new generation is influenced and taught that this is what college kids do. There is a stigma associated with university sanctioned non-alcohol events. They're considered to be a dumb or weird."

Ineffective and unenforced campus policies:

"If you're living in the dorm, you would practice swiping your access card, so public safety wouldn't see you fumble… everyone got caught at least once, and some people got arrested…It kept people out longer, wandering around trying not to get caught…You wait 2 hours till the guards leave, like 4 am and then go back to the dorm."

"We drank in the dorm freshmen year and didn't really try to hide it all. We just threw out our bottles or left vodka and shot glasses in the middle of our floor….This is a dry campus, but students often save water bottles and fill them with various types of alcohol."

"We don't hear about anybody getting kicked out of the nursing program, so we weigh the risk of underage drinking and getting caught."

Table 3. Student excerpts regarding protective factors.

University policies:
"During orientation we talked about if you drink and you get caught you're out of our program, so it was like oh my word, and I didn't drink at all, but then as I got of age receiving an under-age violation didn't really matter to me anymore, so that kind of went out the window. So, policies can be protective up to a point."

"Off campus is the only place you can have alcohol without getting in trouble by the university."

Life experiences:

"Yesterday I was at work and there was a sign that says please don't let visitors in to see the patient. Turns out the patient is a nurse who got fired from her job because she's an alcoholic, and supposed to be detoxing, however she was found drunk yesterday, because she's been paying people ridiculous amounts of money to sneak alcohol into rehab. So my job yesterday was to search people that came to visit for alcohol."

Nursing program policies, responsibilities, peer influences and perceived reputation:

"When people ask me to get a background check I'm like fine, I have 20 of them, so take your pick…as opposed to somebody in another major, maybe they're not getting a background check or drug tested while they're in school…people in education and nursing have more to lose".

"I think we have a good support group, and have been through so much together as nursing students that we are always texting each other, did you make it home safe, and I don't know if other majors do that, but we are always asking are you ok, do you need me to walk you home, I mean we take care of each other."

"I would like my professors to say, oh yes, she was a great student."

"As a student nurse, we have to be honest, dependable and responsible individuals, so we try to uphold this reputable image. Needing a good reputation can prevent us from excessively drinking and partying. We can ruin our futures, so many under age violations, or even DUIs, and we can't get a nursing license, so that fear is instilled in us early on."

"We do have policies that address no tolerance for coming to clinical or class drunk."

"We are not typical college students, and nursing education is a unique major, it's extremely time consuming and there's a lot of additional responsibility directly associated with it."

Table 4. Risk and protective factors framed according to the ecological model.

The ecological model for health promotion (McLeroy, Steckler, Bibeau and Glanz, 1988, p. 356).				
Intrapersonal: Individual characteristics: knowledge, attitudes, behavior, self-concept, skills and their developmental history.	**Interpersonal:** Formal and informal social network and social support systems, including the family, work group and friendship networks.	**Institutional:** Social institutions with organizational characteristics; formal and informal rules and regulations for operation.	**Community:** Relationships among organizations, institutions and informal networks with defined boundaries.	**Public Policy:** Local, state and national laws and policies.
Risk factors affecting nursing students' alcohol behaviors:				
Intrapersonal: -Ineffective personal health habits (lack of sleep, nutrition and exercise) and coping skills during nursing education. -Development of a "Type A" personality, and academic competiveness.	**Interpersonal:** Increased alcohol use associated with nursing peers and work colleagues, and occasionally family. Social isolation from other university peers that are non- nursing majors. Limited time to spend with friends and family at home or away from campus. Financial burdens are often placed on students requiring them to work leading to increased stress and lack of time.	**Institutional:** Lack of effective addiction and alcohol education at the university and within the nursing curricula. Lack of substance use policy enforcement.	**Community:** Access to inexpensive alcohol as early as 8am most days of the week. Bars are primary source of entertainment and recreation within the community for college students. Limited non-alcohol related activities offered in the community geared towards college students.	**Public Policy:** Dry campus policies may increase the risk for harm to students if they make the conscious decision to sneak alcohol into dorms or to stay out late when drinking as a minor attempting to evade campus security.
Protective factors affecting nursing students' alcohol behaviors:				
Intrapersonal: -Development of norms and values reported to begin in adolescents when first exposed to alcohol in the home or at High School. Previous exposure and some substance abuse knowledge prior to college protects them from harm. -Once students assume the nursing student role their beliefs evolve and often further deter them from high risk behaviors.	**Interpersonal:** -Students working in healthcare facilities are exposed to substance abuse issues within nursing providing education on ethical and legal issues associated with this behavior. -Peer influences can be positive, & students form strong support groups; no driving or walking home alone intoxicated, they take care of each other (team mentality).	**Institutional:** -Nursing program mandates yearly drug testing &background checks, deterring them from participating in illegal activities. -Students work to maintain good reputations and favor with nursing faculty; refraining from illegal activities and other high risk behaviors due to nursing program policies and academic responsibilities.	**Community:** -College town provides safe environment for students to live, study and work. -Provides some non-alcohol related activities throughout the school year.	**Public Policy:** -Enforcement of a dry campus and underage drinking policies deters some students from drinking until age 21 and impedes the availability of alcohol on campus (state & federal laws). -No advertisements are placed outside of establishments serving alcohol in an attempt to lure students in for cheap food and drinks (local law). -National and state nursing orgs. provide ethical guidelines for acceptable behavior of RNs and SNs. -Fear of non-licensure as a RN at the state level upon graduation due to poor moral character is a strong deterrent.

CONCLUSION

This dissertation consists of three manuscripts; (1) a scoping study of the existing literature regarding nursing students and alcohol misuse, (2) a scoping study of existing nursing policy regarding substance abuse within the nursing profession which includes nursing students, and (3) a qualitative study that uses the Photovoice method to obtain nursing student perceptions of the risks and protective factors associated with their alcohol behaviors. The information presented within this dissertation creates the foundation for future, larger studies and policy development concerning nursing students and alcohol misuse and abuse.

The scoping study of the literature describes the current state of the science of alcohol misuse among nursing students. Alcohol remained the most prevalent substance of use among nursing students, and most were unaware of alcohol's addictive nature, or what is considered a safe level of consumption (Coleman, 1997; Pierce, 2001). Due to additional pre-professional responsibilities, they are deemed vulnerable and high risk for alcohol misuse due to their inadequate copings mechanisms, and exposure to stressful clinical situations (Polk et al., 1993). Identifying actual prevalence rates in nursing students remains difficult, because of the lack of current research and poorly understood risk and protective factors contributing to the vulnerability of this population. These findings provided evidence that informed the Photovoice study, and the need to explore alcohol use, misuse and abuse among nursing students. Moreover, findings emphasized the need to investigate existing policies that are intended to address this issue.

The intent of the scoping study of policy was to review current national and state level nursing policies regarding nursing students and substance abuse. Findings identified and described several areas of concern that include inconsistent pre-licensure requirements, lack of nursing addiction education, lack of procedures to report impaired nursing student practice, and

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limited availability of alternative to discipline programs for nursing students. Impaired nursing practice, which includes nursing students, remains a major issue (ANA, 2002; NCSBN, 2011) that is complicated by policy inconsistencies. Potential exists for the creation of specific preventive and rehabilitative programs designed to assist nursing students so they remain in the nursing profession (ANA, 2002). However, prior to policy development better understanding of the social, biological and psychological factors (NIAAA, 2007) that place nursing students at risk for substance abuse is needed, in addition to the creation of consistent substance abuse language. Thus, this review informed the Photovoice study by emphasizing the need for future research, and continued dialogue to determine the risk and protective factors associated with nursing students and substance abuse. Identification of specific risk and protective factors will serve to inform future policy development.

The Photovoice study explored nursing students' perceptions of factors influencing alcohol behaviors, guided by an ecological risk and protective factors perspective. This qualitative study provided participants with the opportunity to begin a dialogue among their peers and nursing faculty regarding their perceived issues, which enabled them to suggest several solutions to their perceived issues. Increased education on substance use with emphasis on adaptive coping strategies in a stressful professional role, peer mentorship among nursing students, and frequent alcohol screenings of nursing students were suggested by participants. Perceived social isolation was an identified risk factor, which was not previously found in the literature, but noted to be prevalent among this particular group of nursing students. Due to the consistent rate of substance abuse among nurses (NCSBN, 2011), and the findings of this study, further investigation is warranted to gain better understanding of the multiple factors, particularly those not encountered by university peers, that influence the rate and frequency of alcohol use

(NIAAA, 2002) among nursing students. Results cannot be generalized which is attributed to the qualitative design, however, this study serves as the foundation for larger, future studies that continue to explore identified risk and protective factors associated with alcohol misuse among nursing students.

Future Research

This dissertation underscores the importance of gaining additional knowledge on the alcohol behaviors of nursing students, and if no action is taken how these behaviors may continue into their nursing careers further contributing to the substance use issue within the nursing profession. The scoping study of literature demonstrates the lack of knowledge of rates and frequency of alcohol use among nursing students, along with the need for effective policies to better address this issue. The review of policy revealed the complexity and inconsistency that exists among national and state nursing policies that often compounds this issue. Further examination of policy is warranted and focus should be placed on outcomes research that identifies the most effective strategies used by states boards of nursing to best address this issue. The Photovoice study demonstrated the need to better understand ecological risk and protective factors, and future research needs to continue this approach. Preventive interventions may be created based on the Photovoice study, along with policies to support their use, but outcomes should be closely monitored to ensure effectiveness in specific populations of nursing students. It is recommended that a mixed methods approach that includes larger and more diverse groups of nursing students from across the U.S. be included in future investigations.

References

American Nurses Association (ANA) House of Delegates (2002). *The profession's response to the problem of addictions and psychiatric disorders in nursing: Action report.* Retrieved from http://ana.nursingworld.org/MainMenuCategories/ThePracticeofProfessional Nursing/workforce/ImpairedNurse/Response.aspx

Coleman, E. A., Honeycutt, G., Ogden, B., McMillan, D. E., O'Sullivan, P. S., Light, K., & Wingfield, W. (1997). Assessing substance abuse among health care students and the efficacy of educational interventions. *Journal of Professional Nursing, 13*(1), 28-37.

National Council of State Boards of Nursing (NCSBN) (2011). Substance use disorder in nursing. Retrieved from https://www.ncsbn.org/SUDN_10.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2002). A call to action: Changing the culture of drinking at U.S. colleges. Retrieved from http://www. collegedrinkingprevention.gov/media/TaskForceReport.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2007). What colleges need to know now: An update on college drinking research. Retrieved from http://www. collegedrinkingprevention.gov/1College_Bulletin-508_361C4E.pdf

Pierce, C. S. (2001). Faculty forum. Implications of chemically impaired students in clinical settings. *Journal of Nursing Education, 40*(9), 422-425.

Polk, D., Glendon, K., & DeVore, C. (1993). The chemically dependent student nurse: Guidelines for policy development. *Nursing Outlook, 41*(4), 166-170.

REFERENCES

Agency for Healthcare Research and Quality (AHRQ). (2012). Screening, behavioral counseling, and referral in primary care to reduce alcohol misuse: Comparative effectiveness review executive summary No. 64. Retrieved from http://effectivehealthcare.ahrq.gov/ehc/products/269/1135/CER64_ AlcoholMisuse_ExecSumm_20120608.pdf

American Association of Colleges of Nursing (AACN). (1998). *Substance abuse statement: Policy and guidelines for prevention and management of substance abuse in the nursing education community.* Retrieved from http://www.aacn.nche.edu/publications/position/substance-abuse-policy-and-guidelines

American College Health Association. (2012). *Healthy Campus 2020.* Retrieved from http://www.acha.org/HealthyCampus/ecological_model.cfm

American Nurses Association (ANA). (2001). *Code of ethics for nurses with interpretive statements.* Silver Spring, MD: Author.

American Nurses Association (ANA). (2003). *Nursing's social policy statement* (2nd ed.). Silver Spring, MD: Author.

American Nurses Association (ANA) House of Delegates. (2002). *The profession's response to the problem of addictions and psychiatric disorders in nursing: Action report.* Retrieved from http://ana.nursingworld.org/MainMenuCategories/ThePracticeofProfessional Nursing/workforce/ImpairedNurse/Response.aspx

American Psychiatric Association (APA). (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.

American Psychiatric Association (APA). (2013). Substance-related and addictive disorders. Retrieved from http://www.dsm5.org/Documents/Substance%20Use%20Disorder %20Fact%20Sheet.pdf

Arksey, H., & O'Malley, L. (2005). Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology, 8*(1), 19-32.

Babor, T. F., McRee, B. G., Kassebaum, P. A., Grimaldi, P. L., Ahmed, K., & Bray, J. (2007). Screening, brief intervention, and referral to treatment (SBIRT): Toward a public health approach to the management of substance abuse. *Substance Abuse, 28*, 7-30. doi: 10.1300/J465v28n03_03

Baldwin, J. N., Scott, D. M., Agrawal, S., Bartek, J. K., Davis-Hall, R. E., Reardon, T. P., & DeSimone, E. M. (2006). Assessment of alcohol and other drug use behaviors in health professions students. *Substance Abuse, 27*(3), 27-37.

Baldwin, J. N., Bartek, J. K., Scott, D. M., Davis-Hall, R. E., & DeSimone, E. M. (2009). Survey of alcohol and other drug use attitudes and behaviors in nursing students. *Substance Abuse, 30*(3), 230-238.

Beck, K., Treiman, K. A. (1996). The relationship of social context of drinking, perceived social norms, and parental influence to various drinking patterns of adolescents. *Addictive Behaviors, 21*(5), 633-44.

Begun, A. (1993). Human behavior and the social environment: The vulnerability, risk and resilience model. *Journal of Social Work Education, 29*, 26-35.

Birckmayer, J. D, Holder, H. D, Yacoubian, G. S, & Friend, K. B. (2004). A general causal model to guide alcohol, tobacco, and illicit drug prevention: Assessing the research evidence. *Journal of Drug Education, 34*(2), 121-153.

Bogart, L. M., & Uyeda, K. (2009). Community-based participatory research: Partnering with communities for effective and sustainable behavioral health interventions. *Health Psychology, 28*(4) 391-393.

Borkan J. (1999). Immersion/Crystallization. In B. F. Crabtree & W. L. Miller (Eds.), *Doing Qualitative Research* (177-194). Thousand Oaks: Sage Publications, Inc.

Buckner, M. (2002). Substance abuse among nursing students. *Dean's Notes, 23*(3), 1-3.

Campbell, C. A., Hahn, R. A., Elder, R., Brewer, R., Chattopadhyay, S., Fielding, J., . . . Middleton, J. C. (2009). The effectiveness of limiting alcohol outlet density as a means of reducing excessive alcohol consumption and alcohol-related harms. *American Journal of Preventive Medicine, 37*(6), 556-569.

Centers for Disease Control. (2012). Quick facts for students. Retrieved from http://www.cdc.gov/Features/ CollegeHealth/

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* Retrieved from http://books.google.com.mx/books?id= _zABE9rkMM8C

Chou, S. P. & Pickering, R. P. (1992). Early onset of drinking as a risk factor for lifetime alcohol-related problems. *British Journal of Addiction, 87*(8), 1199-1204.

Coleman, E. A., Honeycutt, G., Ogden, B., McMillan, D. E., O'Sullivan, P. S., Light, K., & Wingfield, W. (1997). Assessing substance abuse among health care students and the efficacy of educational interventions. *Journal of Professional Nursing, 13*(1), 28-37.

Clapp, J. D, Shillington, A. M., & Segars, L. B. (2000). Deconstructing contexts of binge drinking among college students. *American Journal of Drug and Alcohol Abuse 26*(1):139–154.

Core Institute. (2012). *Executive summary: Core alcohol and drug survey-long form.* Retrieved from http://core.siu.edu/pdfs/report10.pdf

Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-5) (2013). Substance-

    related and addictive disorders. Retrieved from http://www.dsm5.org/Documents/

    Substance %20Use%20Disorder%20Fact%20Sheet.pdf

Darbro, N., & Malliarakis, K. D. (2012). Substance abuse: Risks factors and protective factors.

    Journal of Nursing Regulation, 3(1), 44-48.

Davis, K., Drey, N., & Gould, D. (2009). What are scoping studies? A review of the nursing

    literature. *International Journal of Nursing Studies, 46*, 1386-1400.

DeMartini, K. S., & Carey, K. B. (2012). Optimizing the use of the AUDIT for alcohol screening

    in college students. *Psychological Assessment,* 1-10.

Donovan, J. E. (2004). Adolescent alcohol initiation: A review of psychosocial risk

    factors. *Journal of Adolescent Health, 35*(6), 529.

Doweiko, H. (2011). Concepts of chemical dependency. Retrieved from http://books.

    google.com/books?id=RWMIAAAAQBAJ

Fetterman, D. M. (2010). *Ethnography: Step-by-step*: SAGE Publications.

Fleming, M. F. (2002). Clinical protocols to reduce high risk drinking in college students: The

    college drinking prevention curriculum for health care providers. Retrieved from

    http://www.collegedrinkingprevention.gov/ media/FlemingManual.pdf

Fleury, J. & Lee, S. M. (2006). The social ecological model and physical activity in African

    American women. *American Journal of Community Psychology, 37*(1/2), 129-140.

Gerra, G., L. Angioni, L., Zaimovic, A., Moi, G., Bussandri, M., Bertacca, S., … Nicoli, M. A.

    (2004). Substance use among high-school students: Relationships with temperament,

    personality traits, and parental care perception. *Substance Use & Misuse, 39*(2), 345-367.

Glanz, K., & Bishop, D. (2010). The role of behavioral science theory in development and

    implementation of public health interventions. *Annual Review of Public Health, 31*, 399-

    418.

Gnadt, B. (2006). Religiousness, current substance use, and early risk indicators for substance

    abuse in nursing students. *Journal of Addictions Nursing, 17*(3), 151-158.

Goodhart, F. W., Hsu, J., Baek, J. H., Coleman, A. L., Maresca, F. M., & Miller, M. B. (2006). A

    view through a different lens: Photovoice as a tool for student advocacy. *Journal of*

    American College Health, 55(1), 53-56.

Haack, M. R., & Harford, T. C. (1984). Drinking patterns among student nurses. *International*

    Journal of Addictions, 19(5), 577-583.

Haack, M. R. (1985). Impairment and the student of nursing. *Imprint, 32*(3), 61-62.

Haack, M. R. (1988). Stress and impairment among nursing students. *Research in Nursing &*

    Health, 11(2), 125-134.

Haack, M. R., & Yocom, C. J. (2002). State policies and nurses with substance use disorders.

    Journal of Nursing Scholarship, 34(1), 89-94.

Harris, S., Sherritt, L., Van Hook, S., Wechsler, H., & Knight, J. R. (2010). Alcohol policy

    enforcement and changes in student drinking rates in a statewide public college system:

    A follow-up study. *Substance Abuse Treatment, Prevention, and Policy, (5)*18, 1-11.

Hawkins, D. J., Catalano, R. F., & Miller, J. Y. (1992). Risk and protective factors for alcohol

    and other substance problems in adolescence and early adulthood: Implications for

    substance abuse prevention. *Psychological Bulletin, 112*(1), 64–105.

Hawkins, J. D., Arthur, M. W., & Catalano, R. F. (1995). Preventing substance abuse. In Tonry, M & Farrington, D. P. (Eds.). *Building a safer society: Strategic approaches to crime prevention, (19)*, 343-427. Chicago, IL: Chicago University Press.

Heise, B. (2002). The nurse habitue: The history of addiction in nurses, 1850-1982. *Windows Time, 10*(1), 5-7.

Hesse-Biber, S. N., & Leavy, P. (2011). *The practice of qualitative research* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Hyman, Z. (2004). Historical interpretations of alcohol use & misuse: Implications for nursing curricula. *Journal of Psychosocial Nursing & Mental Health Services, 42*(11), 46-57.

Ichiyama, M. A., Fairlie, A. M., Wood, M. D., Turrisi, R., Francis, D. P., Ray, A. E., & Stanger, L. A. (2009). A randomized trial of a parent-based intervention on drinking behavior among incoming college freshmen. *Journal of Studies on Alcohol and Drugs Supplement, 16*, 67-76.

Israel, B. A., Eng, E., Schulz, A. J., Parker, E. A. (2005). Methods in community-based participatory research for health. San Francisco: Jossey-Bass.

Jackson, K. M., Sher, K. J., Gotham, H.J., & Wood, P. K. (2001). Transitioning into and out of large-effect drinking in young adulthood. *Journal of Abnormal Psychology 110*, 378–391.

Johnston, L. D., O'Malley, P. M., Bachman, J. G., & Schulenberg, J. E. (2013). *Monitoring the future national survey results on drug use, 1975–2012: Volume 2, college students and adults ages 19–*50. Ann Arbor: Institute for Social Research, the University of Michigan.

Jonas, D. E., Garbutt, J. C., Amick, H. R., Brown, J. M., Brownley, K. A., Council, C. L., … Harris, R. P. (2012). Behavioral counseling after screening for alcohol misuse in primary

care: A systematic review and meta-analysis for the U.S. Preventive Services Task Force. Retrieved from http://www.uspreventiveservicestaskforce.org/uspstf12/alcmisuse /alcomisart.htm

Kilmer, J. R., Cronce, J. M., & Larimer, M. E. (2014). College student drinking research from the 1940s to the future: Where we have been and where we are going. *Journal of Studies of Alcohol and Drugs Supplement, 17*, 26-35.

Larimer, M. E., & Cronce, J. M. (2011). Individual-focused approaches to the prevention of college student drinking. *Alcohol Research & Health, 34*(2), 210–221.

Levac, D., Colquhoun, H., & O'Brien. (2010). Scoping studies: Advancing the methodology. *Implementation Science, 5*(69), 1-9.

Mallett, K. A., Varvil-Weld, L., Borsari, B., Read, J. P., Neighbors, C., & White, H. R. (2013). An update of research examining college student alcohol-related consequences: New perspectives and implications for interventions. *Alcoholism: Clinical and Experimental Research, 37*(5), 709-716.

Marion, L., Fuller, S., Johnson, N. P., Michels, P. J., & Diniz, C. (1996). Drinking problems of nursing students. *Journal of Nursing Education, 35*(5), 196-203.

McLeroy, K. R., Bibeau, D., Steckler, A., & Glanz, K. (1988). An ecological perspective on health promotion programs. *Health Education Quarterly, 15*(4), 351-377.

Milstead, J. A. (2013). *Health policy and politics: A nurse's guide* (4th ed.). Burlington, MA: Jones & Bartlett Learning, LLC.

Monroe, T., & Pearson, F. (2009). Treating nurses and student nurses with chemical dependency: Revising policy in the United States for the 21st century. *International Journal of Mental Health and Addiction, 7*, 530-540.

Monroe, T., & Kenaga, H. (2010). Don't ask don't tell: Substance abuse and addiction among

    nurses. *Journal of Clinical Nursing, 20*(3-4), 504-509.

Monti, P. M., Tevyaw, T. O., & Borsari, B. (2004). Drinking among young adults: Screening,

    brief intervention, and outcome. *Alcohol Research & Health, 28*(4), 236-244.

National Council of State Boards of Nursing (NCSBN). (2011). Substance use disorder in

    nursing. Retrieved from https://www.ncsbn.org/SUDN_10.pdf

National Council of State Boards of Nursing (NCSBN). (2011b). What you need to know about

    nursing licensure and boards of nursing. Retrieved from https://www.ncsbn.org/Nursing_

    Licensure.pdf

National Council of State Boards of Nursing (NCSBN). (2012a). Differences between BON and

    approval and accreditation. Retrieved from https://www.ncsbn.org/Differences_between

    _BON_approval_and_accreditation.pdf

National Council of State Boards of Nursing (NCSBN). (2012b). The 2011 uniform licensure

    requirements. Retrieved from https://www.ncsbn.org/12_ULR_table_adopted.pdf

National Council of State Boards of Nursing. (2013). Substance use disorder in nursing. Video

    retrieved from https://www.ncsbn.org/2106.htm#manual

National Council of State Boards of Nursing (NCSBN). (2014). Nurse practice act toolkit.

    Retrieved from https://www.ncsbn.org/4253.htm

National Health Service (NHS). (2011). Alcohol misuse definition. Retrieved from http://www.

    nhs.uk/Conditions/Alcohol-misuse/Pages/Definition.aspx

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2002). A call to action:

    Changing the culture of drinking at U.S. colleges. Retrieved from http://www.

    collegedrinkingprevention.gov/media/TaskForceReport.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2002). High-risk drinking in

     college: What we know and what we need to learn. Retrieved from http://www.college

     drinkingprevention.gov/media/FINALPanel1.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2007). What colleges need to

     know now: An update on college drinking research. Retrieved from http://www.

     collegedrinkingprevention.gov/1College_Bulletin-508_361C4E.pdf

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2012). Alcohol's effects on the

     body. Retrieved from http://www.niaaa.nih.gov/alcohol-health/alcohols-effects-body

National Institute on Alcohol Abuse and Alcoholism (NIAAA). (2013). College drinking.

     Retrieved from http://www.niaaa.nih.gov/alcohol-health/special-populations-co-

     occurring-disorders/college-drinking

National Student Nurses Association (NSNA). (2001). *National student nurses' association, inc.*

     code of academic and clinical conduct. Retrieved from http://www.nsna.org/Portals/

     0/Skins/NSNA/pdf/pubs_code_of_ac.pdf

Nurse Practice Act, AL Code § 610-X-3-.02 (2012).

Nurse Practice Act, CA Code § 1428.6 (2010).

Nurse Practice Act, Guam Code § 6431 (1997).

Nurse Practice Act, IN Code § 848 IAC 1-2-17 (2007).

Nurse Practice Act, LA Code § 3419 (2014).

Nurse Practice Act, LA Code §921 (2010).

Nurse Practice Act, MD Code § 8-205.1 (2013).

Nurse Practice Act, ME Code §02-380-07 (2013).

Nurse Practice Act, MN Code § 148.261 (2012).

Nurse Practice Act, NC Code § 21NCAC 36.0320 (2006).

Nurse Practice Act, NE Code § 97-012.06 (2006).

Nurse Practice Act, OH Code § 4723-5 (2014).

Nurse Practice Act, OR Code § 851-031-0007 (2007).

Nurse Practice Act, PA Code § 21.111 (2005).

Nurse Practice Act, SC Code § 33-5-1365 (2006).

Nurse Practice Act, SD Code § 36-9-49 (2005).

Nurse Practice Act, TN Code, 1000-01-.13 (2011).

Nurse Practice Act, TX Code §215.8. (2012).

Nurse Practice Act, UT Code § R156-31b-603 (2013).

Nurse Practice Act, VA Code § 18VAC90-20-96 (2014).

Nurse Practice Act, WV Code § 19-1-12 (2009).

Nurse Practice Act, WV Code § 19-3-15 (2007).

O'Connell, M. E., Boat, T., & Warner, K. E., (Eds.) (2009). Preventing mental, emotional, and behavioral disorders among young people: Progress and possibilities. Committee on the Prevention of Mental Disorders and Substance Abuse Among Children, Youth and Young Adults, Institute of Medicine. Washington, DC: National Academies Press.

O'Malley, P. M., & Johnston, L. D. (2002). Epidemiology of alcohol and other drug use among American college students. *Journal of Studies of Alcohol and Drugs Supplement, 14*, 23-39.

Pierce, C. S. (2001). Faculty forum. Implications of chemically impaired students in clinical settings. *Journal of Nursing Education, 40*(9), 422-425.

Polk, D., Glendon, K., & DeVore, C. (1993). The chemically dependent student nurse: Guidelines for policy development. *Nurse Outlook, 41*(4), 166-170.

Public Health England (PHE) Alcohol Learning Resources (2009). Camden alcohol photo voice project. Retrieved from http://www.alcohollearningcentre.org.uk/LocalInitiatives/projects /projectDetail/?cid=6454

Sallis, J. F., Owen, N., & Fisher, E. B. (2008). Ecological models of health behavior. In *Health behavior and health education: Theory, research, and practice* (4th ed., 564-485). San Francisco, CA: Jossey-Bass.

Sandelowski, M., & Barroso, J. (2006). Handbook for synthesizing qualitative research. Springer Publishing: New York, NY.

Savage, C., Dyehouse, J., Marcus, M. (2014). Alcohol and health content in nursing baccalaureate degree curricula. *Journal of Addictions Nursing, 25*(1), 28–34.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information, 22*(2), 63-75.

Shillington, A. M., Lehman, S., Clapp, J., Hovell, M. F., Sipan, C., & Blumberg, E. J. (2005). Parental monitoring: Can it continue to be protective among high-risk adolescents? *Journal of Child & Adolescent Substance Abuse, 15*(1), 1-15.

Schaus, J. F., Sole, M. L., McCoy, T. P., Mullett, N., & O'Brien, M. C. (2009). Alcohol screening and brief intervention in a college student health center: A randomized controlled trial. *Journal of Studies of Alcohol and Drugs Supplement, 16*, 131-141.

Sisney, K. F. (1992). Intervention: A strategy to help chemically dependent students. *Nurse Educator, 17*(1), 28-29.

Skinner, K. (1993). The hazards of chemical dependency among nurses. *Journal of Practical Nursing, 43*(4), 8-11.

Smarden, M. (1998). An integrative review of substance abuse among nurses from 1981-1997. *Online Journal of Knowledge Synthesis for Nursing, 5,* 1.

Spier, B. E., Matthews, J. T., Jack, L., Lever, J., McHaffie, E. J., & Tate, J. (2000). Impaired student performance in the clinical setting. A constructive approach. *Nursing Education, 25*(1), 38-42.

Stevenson, J. S., & Sommers, M. S. (2005). The case for alcohol research as a focus of study by nurse researchers. *Annual Review of Nursing Research*, 23, 3-26. (PMID: 16350761)

Stewart, C. (2002). Family factors of low-income African-American youth associated with substance use: An exploratory analysis. *Journal of Ethnicity in Substance Abuse, 1*(1), 97-111.

Stokols, D. (1996). Translating social ecological theory into guidelines for community health promotion. *American Journal of Health Promotion, 10*(4), 282-298).

Strauss, A., & Corbin, J. (1998). Basics of qualitative research: Techniques and procedures for developing grounded theory (2nd ed.). Thousand Oaks, CA: Sage.

Substance Abuse and Mental Health Services Administration (SAMHSA). (2012). Treatment Episode Data Set (TEDS). Retrieved from http://www.samhsa.gov/data/spotlight/ spotlight054College2012.pdf

Substance Abuse and Mental Health Services Administration (SAMSHA). (2013). Results from

    the 2012 national survey of drug use and health: Summary of national findings, NSDUH

    series H-46, HHS Publication No. (SMA) 13-4795. Retrieved from http://www.

    samhsa.gov/data/ NSDUH/2012SummNatFindDetTables/NationalFindings/

    NSDUHresults2012.pdf

Substance Abuse and Mental Health Services Administration (SAMSHA). (2014). Stable

    resource tool kit. AUDIT-C-overview. Retrieved from http://www.integration.

    samhsa.gov/images/res/tool_auditc.pdf

Sullivan, E. J., & Handley, S. M. (1992). Alcohol and drug abuse in nurses. *Annual Review of*

    Nursing Research, 10, 113-125.

The Cochrane Library. (2014). What is a systematic review? Retrieved from http://www.

    thecochranelibrary.com/view/0/AboutCochraneSystematicReviews.html

Tuckett, A. G. (2005). Applying thematic analysis theory to practice: A researcher's experience.

    Contemporary Nurse, 19(1-2), 75-87.

Wang, C., & Burris, M. A. (1994). Empowerment through photo novella: Portraits of

    participation. *Health Education & Behavior*, *21*(2), 171-186.

Wang, C., & Burris, M. A. (1997). Photovoice: Concept, methodology, and use for participatory

    needs assessment. *Health Education & Behavior, 24*(3), 369-387.

Wechsler, H., Kuo, M., Lee, H., & Dowdall, G. W. (2000). Environmental correlates of underage

    alcohol use and related problems of college students. *American Journal of Preventive*

    Medicine, 19(1), 24–29.

Wechsler, H., Lee, J. E., Gledhill-Hoyt, J., & Nelson, T. F. (2001). Alcohol use and problems at colleges banning alcohol: Results of a national survey. *Journal of Studies on Alcohol, 62*(2), 133-141.

Wechsler, H., & Nelson, T. F. (2008). What we have learned from the Harvard School of Public Health college alcohol study: Focusing attention on college student alcohol consumption and the environmental conditions that promote it. *Journal of Studies of Alcohol and Drugs, 69*(4), 481-490.

White, A., & Hingson, R. (2013). The burden of alcohol use: Excessive alcohol consumption and related consequences among college students. *Alcohol Research, 35*(2), 201-218.

APPENDICES

Appendix A. Overview of Scoping Study framework developed by Arksey and O'Malley (2005).

Stage 1	Identify the research question: consider sample, setting, interventions and outcomes.
Stage 2	Identify relevant studies: Use of published and unpublished studies, and reviews that answer the research question. Consider use of electronic databases, hand searches of reference lists found in journals, and networking with relevant local and national organizations.
Stage 3	Study selection: Focus is placed on breadth not depth of literature review. A flexible design that is similar to a systematic review, but with the allowance of post hoc search criteria, once researchers gain familiarity with the literature, rather than focus on a specific research question with specific inclusion and exclusion criteria prior to the search.
Stage 4	Charting the data: This descriptive analytical approach requires extrapolation, examination and sorting of data into key issues and themes. This framework uses an interpretive qualitative data analysis approach, and does not focus on quality appraisal of the evidence, or generalizability of findings.
Stage 5	Collating, summarizing and reporting the results: Focus is first placed on the amount of studies including their purpose, population and methods, followed by thematic organization and prioritization of identified categories. Consistent use of a developed template or matrix outlining priority characteristics assists with this process. Researcher positions and bias are reported with findings.
Stage 6	Consultation exercise: Use of key stakeholders and representatives to enhance findings by providing valuable insight on potential references and related issues to the topic under study.

Appendix B

<u>**Discussion Questions**</u>

Brainstorming Discussion Questions:

Participants will participate in a group brainstorming session guided by discussion questions that are designed to help them focus on potential photographic content that will address the aims of the study. Points for discussion during the brainstorming session may include:

1) What are the factors that contribute to students attending non-alcohol functions on campus?
2) Tell me about alcohol use, misuse and abuse, including prevention efforts on and off campus?
3) What do you think of the university's alcohol and substance abuse policies and are they enforced?
4) Tell me about alcohol misuse and how you perceive this in your environment?
5) Does this change on a daily, weekly, monthly or seasonal basis?
6) Do you notice a decline in alcohol and substance use in your friends once they graduate, this includes both nursing students and the rest of the student body, Why or why not?
7) Do you feel you were properly educated on alcohol use, misuse and abuse prior to college, during college and within your nursing curriculum?
8) Are you aware that nurses, including nursing students, have substance abuse addictions?
9) Have you experienced alcohol misuse or abuse personally or professionally (they may be nursing aids) during school and/or during your current role/occupation?
10) What do you see as the legal and ethical implications of alcohol misuse/abuse, and/or substance use related to your performance as student nurse and eventually as a registered nurse?

Appendix C

Photovoice assignment #1: Photo Narrative Discussion Questions

Participants were instructed to produce a minimum of 10 images over the next 2 weeks for their photo assignment focusing on risk and protective factors related to alcohol use, misuse and abuse among student nurses. Participants selected and uploaded the five images they feel are most relevant, representing their photo assignment into a shared folder in D2L. Each photo was accompanied by a photo title and a written narrative in a word document that describes each image which was shared among participants in D2L.

- Participants' descriptions were guided by the SHOWED acronym created by Wang to assist with creating a narrative to describe the image (Wang, 1999).

These questions include:

1) What do you **S**ee happening in this image?

2) What is actually **H**appening in this image?

3) What does this image tell us about life in **O**ur community?

4) **W**hy does this situation, issue, or strength exist?

5) How could this photo **E**ducate people?

6) What can you or your group **D**o about this situation, issue, or strength?

- Discussion threads will be started in D2L to encourage group discussion during this time period.

Appendix D

Photo Assignment #2

You have been asked to reflect on the final selection of images that you chose as a group, which are numbered, image 1, image 2, image 3, etc.

Those images have been placed in a "final selection" file under photo assignment #2 for your review over the next week. Begin to identify the risk and protective factors associated with these images. You may want to reflect on our discussions to help with this assignment.

You will need to choose, and then vote on the **top 3 issues** from the final selection file that you may address as a group.

A survey has been created under photo assignment #2 that will allow you to submit your vote. Simply respond by ranking your top issues, and then select the images you feel best represent those issues.
Ex. Issue #1:_____ Image #:____; Issue #2: _____ Image #: __; Issue #3: _____ Image #:__

After I tally the votes, I will upload the results to the discussion thread under photo assignment #2. You will have another week to add your own reflections on the final selection of images and corresponding issues. This can be done in a word document by writing a brief narrative, and placing the corresponding image # and issue below the narrative.

Begin to think about next steps, and how you would like to address the identified risk and protective factors that you have identified within your group.

Theme Activity Worksheet

1. Think about all of the photos you took as well as the photos of others.

2. On a note card – do this quickly. We want the first thoughts that come to mind. (5 mins.)
    a. Green card: Record 3-5 words or phrases that capture what or who places you at risk for alcohol misuse and abuse within your environment.
    b. Yellow card: Record 3-5 words or phrases that capture what or who protects you from alcohol misuse and abuse within your environment.

3. In groups of 3, sort your words into common categories. (15 mins.)
    a. After they are sorted, record a title for each group of words.
    b. Recorder will capture all words and title for each group.

4. Present main themes we gathered from discussions so far: (5 mins.)

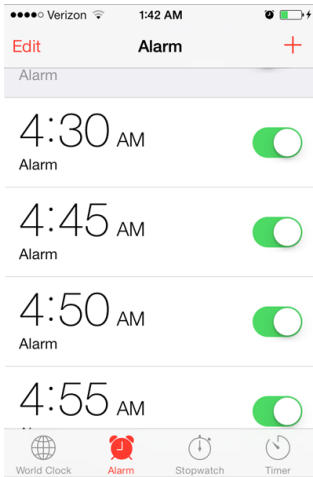| Risks	Protective Factors

Appendix F

Excerpts from Photobooks created by participants' for dissemination of findings.

Alcohol Use, Misuse and
Abuse Among Nursing
Students: A Photovoice Study

Risk Factors and
Associated
Themes

Julie McCulloh Nair RN, MSN
Doctoral Dissertation
Spring 2014

Lack of Time and Health

This is a screenshot of the alarm on my phone the day before a test. I am so busy with other school projects the program assigned this week, and even with my outside job, that I have had no time to adequately manage all the many things I have to do right now. I am fully aware this lack of sleep is extremely unhealthy, but, like with alcohol moderation, as a nursing student I feel like the healthy habits of sleep and relaxation I preach to patients just cannot apply to me as a person. Many times, as a program, I feel the students try to advocate for themselves when they feel this overwhelmed, but not many listen to us because this struggle is deemed as part of the process.

Hell Week

How nursing students celebrate "Hell Week": Many of us are familiar with exam weeks. It always seems that the week of a nursing exam is also the week that exams, projects, and papers are due for other classes. This results in mega stress for nursing students, which will most likely drive them to consume alcohol to cope and relax.

Exam Time
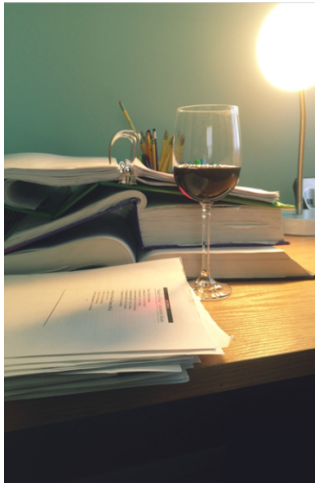
Many of us joke around and send pictures of our wine glasses and books while studying for an exam. Mainly with a caption about how the test contains way too much information and therefore the alcohol is necessary. We all think it's funny but the reality that we immediately think of alcohol as the coping mechanism is a bit sad, too.

Lack of Time

This is a picture of my running gear buried under my nursing books and stethoscope. I love to run—it is my form of stress relief. Unfortunately, this is how my room normally looks, because nursing school overwhelms all the other activities in my life, including the ones I feel keep me healthy and calm. This lack of healthy coping can often lead to unhealthy coping.

Free Me

This is a picture of a wall in an acute care psychiatric unit. I had a clinical rotation here. This clinical rotation reminded me of the importance of mental health. If you are facing a mental health issue, it affects every aspect of your life. Nursing students face an intense amount of stress—from the crazy amount of work we have to do, to walking around campus knowing we just witnessed a life or death situation that no one around us in a different major could ever understand. Moreover, because of HIPAA, we can't even try to explain it anyway. Such experiences can greatly affect a person, and in a nursing program, this reality is not acknowledged, leading students to find other ways to cope.

Mornings

I was eating breakfast this morning and looked up to find this unlikely grouping of beverages. It seems like there is always some type of alcoholic beverage present on our kitchen table.

Drugs and Alcohol

This is a photo that I took in my room one night. My anti-anxiety medication happened to be sitting next to my glass of wine. It was a stressful day and it just made me think of how people deal with the stress and anxiety of everyday life.

The Back-breaking Burden
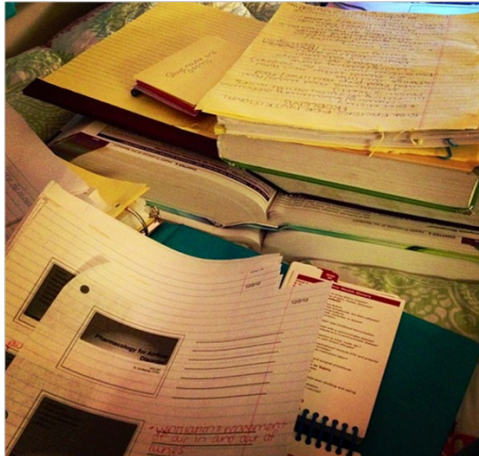
Schoolwork is physically and mentally demanding. The weight of all of these books correlates with the weight of a heavy courseload and pressure to succeed in class.

Nursing Student RX

Alcohol became a known nursing school coping mechanism. Through previous students and the outside marketing, consuming alcohol became more and more socially acceptable as college progressed.

Protective People "The Mackey Effect"

Knowing we may receive judicials, be dismissed from the program for violating student policies regarding alcohol or drug use, or not be eligible to obtain a nursing license after we graduate works as a deterrent and keeps us sober maybe more than other students at our university.

Protective Factors and Associated Themes

Our Nursing Mentors

Often the first nurses we know, and rely on to teach us about the profession. Faculty serve as role models, and we don't want them to think poorly of us, so we work to meet their expectations. Advisement beyond academics is also needed as we begin our careers.

We Get Each Other Through
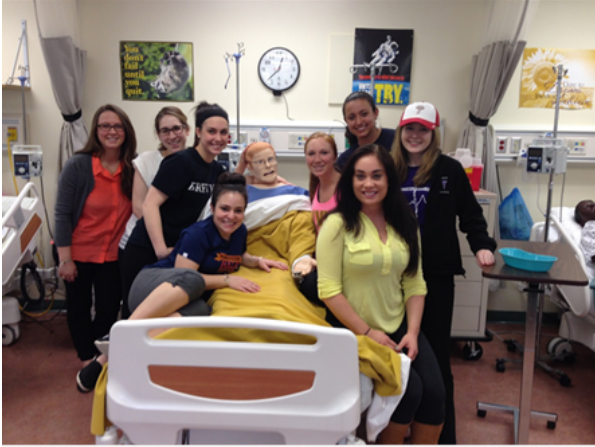
We rely on each other to get through the difficult days of nursing school. No one else understands us, so we have to stick together.

Healthy Alternatives

Exercise, when we have time helps with the stress and anxiety and provides us with a healthy alternative to drinking alcohol.

This image reflects the countless hours spent in the library. The only consitent components in this picture are the books and the picturetaker.

What Do You See?

Our reputations are important. What we have done, are doing and will do matters. People judge us by our actions so binge drinking, and alcoholism is a big deal to a nursing student. Other students are not judged as harshly and may not have difficulty graduating or getting jobs if they use alcohol.