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I, M Elizabeth Miller, hereby submit this original work as part of the requirements for the degree of:
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It is entitled:
Photovoice as a Needs Assessment to Explore Stress in Teens

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Abstract

Teenagers experience feeling of stress, confusion, pressure to succeed, self-doubt, and other fears while navigating their way to adulthood. Teens have common experiences of stress across race, ethnicity and economic background, but there are stressful experiences during the teen years that differ due to the context of the community and school environment. Research related to stress in high-achieving schools is limited. With the increasing pressures of achievement and competition for college entrance, particularly in a community with higher parental expectations and a long standing history of academic excellence, exploring stress through the eyes of those living the experience is needed to understand their experiences, identify the supports that exist to help them cope and initiate additional resources that may be needed to further support their healthy journey through high school and beyond. Photovoice has been an effective method for conducting participatory needs assessments.

Students, parents, and high school faculty/staff in a high-achieving, Midwestern, suburban high school were engaged in conducting a participatory needs assessment. Students used a three-round, six-week photovoice project to depict their stressors and coping, whereas parents and faculty/staff participated in focus groups to discuss their perceptions of the high school student stress and coping. The overarching themes related to stress identified by the students, parents and faculty/staff included belonging and acceptance, time, expectations of school and success, and substance use. The themes related to coping identified by the students included reflections of self and situation, using nature and animals, positive relationships, finding an escape or distraction, and making choices to move on. Students also identified a two-stage process of coping which involved using emotion-focused coping strategies to deal with the stressful situations in the
moment and then using problem-focused coping strategies to effectively “move on” through the stress. The parents and faculty/staff identified the major theme of student use of distractions or procrastination to cope.

Students recommended increasing opportunities for peer connection as a way to decrease the stress of social acceptance. Both students and parents identified that students needed more training and better coping skills. Parents also suggested that the role of the school nurse be strengthened and expanded to include specific mental health training and to be a more visible resource for the students and also suggested that a more detailed guide be designed for parents and students (junior year) for the college search to assist in managing the stress related to that process. The faculty/staff identified enhanced emotional capacity of parents and teachers (or other adult resources at the school) as a critical coping resource for students and suggested that emotional capacity be included in screening of new faculty/staff hires. In addition it was recommended that current faculty/staff receive education and training in enhanced emotional capacity as part of professional development and suggested that this could be offered as part of a district wellness program for employees.

The findings from this study support the concept of coordinated school health as well as school connectedness which have been shown to improve adolescent health and well-being. School health and wellness professionals and wellness teams can use this research to guide health and wellness needs assessments and evaluations within their school district. Health education professionals within the school can use this information to creatively engage students in exploring their perceptions of various health topics through the photovoice process. Other educators can use an adapted photovoice process as an innovative teaching strategy to stimulate discussion and writing about various topics.
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Chapter 1
Introduction

Overview of Teen Stress

Teenagers experience feeling of stress, confusion, pressure to succeed, self-doubt, and other fears while navigating their way to adulthood. *Health People* (2010) identifies the promotion of mental health and well-being as a leading indicator of public health. The Substance Abuse and Mental Health Services Administration (SAMHSA, 2007) reported that over two million youth have experienced a depressive episode at least once in their lifetime. Additionally, 30 percent of teens with at least one depressive episode are twice as likely to initiate alcohol use than teens with no history of depressive episodes (SAMHSA, 2007). In 2008, 14.5 percent of students had seriously considered attempting suicide and 6.9 percent had attempted suicide one or more times; suicide is the third leading cause of death for 15-24 year-olds (Centers for Disease Control (CDC), Youth Risk Behavior Surveillance System (YRBSS), 2008). In 2008, 25 percent of teens in 12th grade reported heavy drinking (Federal Interagency Forum on Child and Family Statistics, 2009) and alcohol use has been shown to increase as grade level increases (National Health Statistics Report, 2009). Stress has been shown to be a predisposing factor in adolescent alcohol use (Wills & Shiffman, 1985) as well as other risky behaviors such as unprotected sex (Brooks, Harris, Thrall, & Woods, 2002; Mazzaferro, Murray, Ness, Bass, Tyus & Cook, 2006) and smoking (Finkelstein, Kubzansky, & Goodman, 2006).

Needs of Teens Related to Stress

Studies have explored stress and coping in teen years (Chandra & Batada, 2004, 2006; Compas, Connor-Smith, Saltzman, Thompsen, & Wadsworth, 2001; Finkelstein, Kubzansky, & Goodman, 2006; Finkelstein, Kubzansky, Capitman, & Goodman, 2007; Goodman, McEwen, Dolan, Schafer-Kalkhoff, & Adler, 2005; Guszkowska, 2005; Hampel & Petermann, 2006;
Herman-Stahl, Stemmler, & Petersen, 1995; Lau, 2002; Mates & Allison, 1992; Matsushima & Shiomi, 2003; Williams & McGillicuddy-De Lisi, 2000), but most have used quantitative methodologies, such as surveys, which don't allow for in-depth description of the problem and richness of data specifically related to the context within which the problem exists. Community-based participatory action research or action research is an approach that allows individual voices of community members to elucidate a community concern, builds on the assets and existing resources in a community, facilitates collaboration, fosters capacity building, focuses on local contextual relevance of a problem and upholds a commitment to sustainability of change in a community (Israel, Eng, Schulz, & Parker, 2005). For these reasons, it is a good approach in exploring the contextual nature of stress in teenagers. Few studies using these methods have been done, but an exemplar is a study in an urban setting to understand the stress of African-American teens (Chandra & Batada, 2004; Chandra & Batada, 2006). Teens have common experiences of stress across race, ethnicity and economic background, but there are stressful experiences during the teen years that differ due to the context of the community and school environment. These differences warrant research. Studies are lacking in high-achieving communities where resources and attention may be deemed unnecessary. With the increasing pressures of achievement and competition for college entrance, particularly in a community with higher parental expectations and a long standing history of academic excellence, exploring stress through the eyes of those living the experience is needed to understand their experiences, identify the supports that exist to help them cope and initiate additional resources that may be needed to further support their healthy journey through high school and beyond. In order to develop support systems, programs or interventions specific to their context, their needs must be given voice through a participatory needs assessment in which they are empowered to share their stories and offer appropriate
suggestions for avenues for coping.

**Research Rationale and Research Questions**

The purpose of this action research needs assessment is to empower students in an advanced photography class in a suburban, upper-middle class high school in southwestern Ohio (referred to the ABC school and school district) to explore, through a participatory approach, their stressors and coping mechanisms; to identify the assets of the school and community that help them cope; and to identify what could be put into place to further assist them in managing their stress. Students on the wellness committee identified stress as a potential issue because of the academic demands along with the normal pressures of high school. Related to the discussion of stress was the discussion about the Parents’ Resource Institute for Drug Education (PRIDE) survey data (alcohol and drug use) which highlighted the fact that underage alcohol consumption in this community is higher than the national averages (International Survey Associates, 2006). Students suggested that the stress levels could be related to increases in risky behaviors, particularly alcohol use which is the drug of choice in this community.

The ABC School District is the top school district in a mid-western state as well as one of the top 100 school districts in the United States. The students excel on state and high-stakes testing and are challenged with the curriculum and advanced placement courses. The district feels pressure to rank nationally on test scores and taxpayers demand a return on investment (higher priced homes and higher taxes) through academic performance and a school district reputation of excellence. One intended outcome of this research study was to create a dialogue with school and community leaders about the stress of teens and to disseminate the students' findings through a community forum. As a result, it is hoped that sustainable changes can be implemented to improve the quality of life of these high school students.
The research questions for this research study were:

1) What are the perceived stressors of ABC High School students?

2) What are the perceived stress-related coping skills and strategies of ABC High School students?

3) What are the support systems, assets, or strengths of the community, school, parents and/or friends that are available to assist in coping with stress?

4) What interventions, processes or programs could be put into place to help address the needs of ABC High School students in dealing with stress?

5) Does photovoice, as a needs-assessment method, serve as an effective vehicle for the exploration, expression, and dialogue around perceptions of stress for ABC High School students?

6) Does the process of photovoice, as a needs-assessment method, help students to increase their understanding of their stressors and improve or increase strategies for coping?

7) What are parents’ perceptions of their student's stressors, stress levels, and coping strategies?
   a) Do these perceptions align with the students' perceptions?
   b) Is there a gap that exists between parents’ and students' perceptions?
   c) If a gap exists, how can this gap be closed?

8) What are the faculty/staff perceptions of students' stressors, stress levels, and coping strategies?
   a) Do these perceptions align with the students' perceptions?
   b) Is there a gap that exists between the perceptions of faculty/staff and students?
c) If a gap exists, how can this gap be closed?

**Significance of the Study**

This action research needs assessment exploring the experience of stress of high school students in a suburban, upper-middle class, predominantly White community will fill a gap in the literature related to stress in teens in high-achievement, highly-educated communities. The information will contribute to our understanding of stress in teens within this particular context and the related high-risk behaviors potentially used as coping mechanisms. We will better understand their experiences of stress because we will allow their voices to be heard and will see the data through their eyes using a participatory approach. In addition, because the students will use their voices to communicate what they need, the community will be informed on socially and culturally appropriate interventions that may promote sustainable change. Research using photovoice to explore teen perceptions of community assets and deficits has been conducted with inner city teens (Strack 2004). Research with inner city teens has also been conducted to explore stress and coping via mixed-methods (Chandra & Batada, 2004), although no research has been published with upper-middle-class suburban teens using photovoice to identify their stressors.

**Delimitations**

The research study has the following delimitations:

1) The ABC High School was selected because of access to the faculty and students through the investigator's role as a wellness committee member and a member of the community with children in the school district.

2) Only students in the second semester advanced photography class at ABC High School during the 2009-2010 school year were eligible to participate in this study.

3) Only parents of tenth through twelfth grade students at ABC High School during the 2009-
2010 school year were eligible to participate in the parent focus groups for this study. It was decided that ninth graders have additional and potentially different stressors related to the transition and adaptation to high school.

4) Only faculty and staff who worked at ABC High School during the 2009-2010 school year were eligible to participate in staff/faculty focus group for this research study.

**Limitations**

The limitations of this study include:

1) The use of a purposive sample to include those students in the advanced photography class who choose to allow their data to be used in the research and those parents and faculty/staff who self-select to participate in the focus groups. The results will reflect the experiences specific to this population and may not be generalized to other schools or communities.

2) The data collection is self-reported and will necessarily include the bias of the individuals providing the experiences.

3) Although students were not graded on their participation in the research process, points were assigned for the production of contact sheets and two printed photos each week. These points contributed to the overall grade for the course which could have affected the photovoice and discussion process.

4) My role as a parent in the school district and a member of the community create a unique and biased lens through which I explored the issues and concerns. Two of my children recently graduated from the high school and I continue to live in the community and work with the school district on the wellness committee.

**Assumptions**
The assumptions of this research study include:

1) The participants in the research study, as a result of using participatory methods, provide honest information and feedback regarding the questions posed in the photovoice sessions and the focus groups.

2) The students will make honest attempts to capture their experiences in photographs to the best of their ability.

3) The participants understand the questions asked during the photovoice session and focus groups and that the students understand the instructions related to the photovoice project.

**Operational definitions and use of aliases**

*Stress.* Stress is the “nonspecific response of the body to any demand” (Selye, 1984, p 472). It is the body's reaction to a change that requires a physical, mental or emotional adjustment or response. There are two types of stress, that which motivates us (eustress) and that which acts to immobilize us (distress) (Selye, 1984). The term stress in this research study will focus on the stress that acts to create immobilization and distress in the lives of teens.

*Participatory Action Research (PAR).* An orientation or approach to research in which the researcher is a co-learner, the community participates in the research process, and the findings are translated into action for education and change (Minkler, 2000). For this research study, the term “action research” will be used with the participatory nature being understood.

*Photovoice.* A participatory action research method using photographs taken by participants to depict their needs and the strengths and issues of their community, to inform leaders, and to promote change (Wang 1999; Wang & Burris, 1997)

*Pseudonyms.* When using quotes or specific comments from participants, their identity was protected by the use of pseudonyms. The high school was also provided a pseudonym.
Organization of the Dissertation

The next chapter of this dissertation presents a review of the literature related to stress in adolescents and the use of participatory action research as an approach. It also includes a review of the methods selected to address the research questions as well as the theoretical framework from which to interpret the results. Chapter three describes the methods and procedures used to collect the data and the rationale for the use of those particular methods. Chapter four presents the results of the photovoice project and the focus groups and recommendations for action. Chapter five presents a discussion and significance of the results, implications for practice and direction for future studies.
Chapter 2
Literature Review

Stress and Coping in Teens

The teenage years are characterized by peaks and valleys framed by physiological changes and pressures to succeed academically and conform socially. Teens within the United States culture are confronted with high parental and school expectations and peer relationship struggles on a daily basis. They are involved in a number of bidirectional relationships that are dependent on their individual characteristics (biology, emotions, personality and cognition) and the context in which they are encountered (peers, family, school, workplace) (Lerner & Ohannessian, 1999; Seiffge-Krenke, 2000). These various contexts can create stress in teens which can in turn increase the potential for risky behaviors.

Hans Selye (1956) defined stress as a non-specific response of the body to any demand placed upon it. Eustress is a term that indicates that some stress can be positive in terms of creating motivation and leading to favorable outcomes; conversely, distress can lead to mental suffering and inaction. This relationship of stress can be conceptualized by a curvilinear graph in which performance increases and then decreases with higher levels of exposure to stress (Yerkes & Dodson, 1908).

Wills and Shiffman (1985) identified three types of stressors categorized as major life events, daily hassles, and enduring life strain. Major life events are those that are short in duration but create intense experiences such as a move to another school, death of a parent or a major illness. Daily hassles are described as those situations which occur as everyday problems in life, such as dealing with traffic or crowds or waiting in line. The final type of stressor is the chronic
enduring strain that creates pressure over longer periods of time and is related to roles such as a student or teenage son or daughter.

Perceived stress occurs when the external or internal demands (stressors) are appraised as exceeding the ability or resources to cope (McNamara, 2000). This emphasizes that stress is a state of being, whereas the stressors are the stimuli that produce a state of stress. In a recent review of the literature on teen stress, LaRue and Herrman (2008) identified several key sources of stress which have an impact on teen quality of life. The main stressors identified were school, family and home life, and social disadvantage, but also included employment, money, body image relationships, hospitalization, relocation and abuse. When asked to use their own words to define stress, teens used words such as pain, worry, anger, problems, tension, frustration, pressure, strain, anxiety, and emotion (Chandra & Batada, 2006; Humphrey, 2002).

Psychosocial problems in children and adolescents have increased over the last twenty years from 7% to 18%. A higher prevalence of adolescent depression has been associated with life stress (American Academy of Pediatrics, 2000) and the lifetime prevalence of depressive symptoms in high school students has been reported as high as 25% (Schraedley, Gotlib & Hayward, 1999). Factors that negatively affect teens emotionally include fatigue, inferior health status, lower intelligence, troubles social environment (friends, school), poor family relationships and lower aspiration levels (Humphrey, 2002). Lau (2002) noted that teens can experience a variety of stressors from mild to extreme. Stress left unchecked can increase the risk for mental health issues in teens, such as depression and suicide, in addition to being associated with an increase in risky behaviors such as smoking, drug and alcohol use, behavioral problems and risky sexual behaviors (Brooks et al., 2002; Finkelstein, Kubzansky, Capitman, & Goodman, 2007; Finkelstein, Kubzansky, & Goodman, 2006; Goodman, McEwan, Dolan, Shafer-Kalkhoff & Adler,
Furthermore, chronic exposure to stress can lead to physical and psychological illnesses (Goodman et al., 2005).

Research has suggested that the way in which teens adjust to and cope with stressful situations reflects their ability to adapt and undergo psychological adjustment. Lazarus and Folkman (1984) defined coping as a dynamic process to manage specific internal or external demands that exceed the resources to cope. Having coping resources and behaviors has been reported to be critical to avoiding the negative, long-term psychological effects of environmental stressors on teens (McNamara, 2000). Developing coping mechanisms is important in teens years because during these years, teens are faced with a variety of challenges and stressors and will need to have a toolbox of positive coping strategies from which to choose (Hampel, & Petermann, 2006; Seiffge-Krenke, 2000). As teens increase in both maturity and in the number and variety of coping strategies, the harmful effects of stress lessen.

Two main coping styles have been identified in the literature: problem-focused coping strategies (intended to directly address the source of stress) and emotion-focused coping (engaging in behaviors to alleviate the emotional effect of the stressor). These coping strategies or styles are used in various ways: 1) to alter or manage the situation that is responsible for the stressors; 2) to manage the appraisal of the stressors in ways that reduces their threat; or 3) to manage the outcomes of the stressors, such as anxiety or other states of distress. Although these two broadly defined categories don’t account for some individual subtypes (Compas, Connor-Smith, Saltzman, Thomsen & Wadsworth, 2001; Lazarus & Folkman, 1984), research has found that teens who cope by seeking social support or venting feelings (emotion–focused) experience more negative outcomes, such as substance abuse and depression. This is in opposition to teens who confront the stressor by working through a problem or seeking spiritual guidance (Patterson & McCubbin, 2005; LaRue & Herrman, 2008; Mazzaferro et al., 2006; Nash, McQueen & Bray, 2005).
1987; Tolan, Gorman-Smith, Henry, Chung, & Hunt, 2002). Consistent with these findings, Herman-Stahl, Stemmler, and Petersen (1995) found that adolescents who primarily used an approach-oriented style such as problem-solving reported fewer symptoms of depression. Hampel & Petermann (2006) described behaviors related to maladaptive coping styles as passive avoidance, rumination, emotional ventilation, resignation and aggression. They reported that maladaptive coping was associated with more emotional and behavioral problems. For example, ruminative coping was shown to be the most important risk factor for depression in adolescent girls. No matter what the coping style or source of stress, assessing teen stressors, the impact of stress, and coping skills is an important first step in prevention efforts as well as health promotion (Chandra & Batada, 2004/2006).

**Needs Assessments in Health Education**

A needs assessment is an important first step in addressing the quality of life or, more specifically, a health issue within a community. A community can be defined as “an inclusive, complex and dynamic system of which we are a part” (Minkler, 2008, p13). Communities have also been described as a group of people with whom you identify and feel similar to because they have the similar values, beliefs and habits. Communities can be based on shared interest, characteristics, social interactions or even diseases (Bartholomew, Parcel, Kok, & Gottlieb, 2006). Therefore, a school or a class within a school can be thought of as a community.

A needs assessment provides the information necessary for change and empowerment of the community members. It is designed to assist in promoting change by actively involving the community in determining the goals of the assessment, critically examining the needs of the community, identifying and building on the existing strengths of the community, and empowering the community participants throughout the process (Hancock & Minkler, 2008). Needs
assessments have been used to gather information about relevant community health issues, utilizing the members of the community to gather the information and express their concerns. Key features of a needs assessment involve asking the questions 1) Who is the assessment attempting to inform?, 2) What is the purpose of the needs assessment?, 3) Whose needs are to be assessed?, 4) What questions are to be asked?, and 5) What resources are available to complete the needs assessment? (Hobbs, 1987).

In looking at the health needs of a community, taking into account the context or the environment of the community is essential because health is heavily influenced by the complexities of the context in which it exists. Each community has its own history, traditions, and cultural values and beliefs. Planning a program must take into account these variations, because programs that are designed based on an understanding of the culturally appropriate context within the community are more likely to affect the behaviors of the community members (Green & Kreuter, 2005).

A participatory approach in the needs assessment process will assure a higher level of cultural appropriateness and contextual characteristics in the recommendations for program planning, as well as identify the strengths and the assets of the community (Green & Kreuter, 2005). The participatory process also facilitates empowerment of the community members to create dialogue and action in producing change in their lives. “Empowerment education is an effective health education and prevention model for personal and social change” (Wallerstein & Bernstein, 1988, p. 379). Empowerment, or the feeling of control over one's life, affects health in a positive way and research has shown that as communities or community members become empowered, risky health behaviors, such as alcohol use and suicide, may begin to decrease (Glanz, Rimer & Viswanath, 2008)
Empowerment is important because it is the process by which the community takes responsibility for and control over their environment and thus their lives. As previously noted, Wallerstein and Bernstein (1988) discuss the role of empowerment education in effective health education and prevention to effect change. The theory of empowerment education in health education was borrowed from the work of Brazilian educator, Paulo Freire. The central theme is that education and action take place in the context of people's life experiences through critical reflection (Freire, 1970, 1982). Additionally, asking questions (through interviews, focus groups, town hall meetings and other methods) that spark meaningful reflection and dialogue have been seen to be critical to empowerment and identification of needs. A variety of assessment techniques such as interviews, focus groups, and surveys has been described as being essential to capturing the various perspectives on an issue and provides the basis for triangulation of the data sources (Hancock & Minkler, 2008; Maguire, 1997). The various techniques that have been used in asking questions and gathering information for a needs assessment include individual interviews, key informant interviews, focus groups, town hall meetings, charrettes, Delphi technique, nominal group process, surveys and photovoice (Glanz et al., 2008; Miller & Hustedde, 1987; Windsor, Clark, Boyd & Goodman, 2004).

**Participatory Research**

Participatory action research is a systematic research approach to individual and social change through the development of critical awareness of an issue. The goal is to improve the lives of those involved in the research and to transform the structures needed to make those improvements (Cargo & Mercer, 2008; Maguire, 1997; Park, Brydon-Miller, Hall & Jackson, 1993). Reason and Bradbury (2006) define action research as “a participatory democratic process concerned with developing practical knowing in the pursuit of worthwhile human purposes,
grounded in a participatory world view (p. 1). It is an alternate approach to research that involves the co-creation of knowledge between researchers and participants (Maguire, 1997) and empowers the participants in decision-making that will improve their own lives. This approach to research emphasizes the involvement of those who are affected by an issue in a recurrent series of knowledge generation, action, and reflection with the purpose of promoting positive change at either the individual, interpersonal, organizational or community level (Reason & Bradbury, 2006). Through the shared creation of knowledge, participatory action research is educational in that participants learn by searching or researching the issues that are applicable and important in their lives. The path from creating the knowledge and then using the knowledge to create change is direct, since the participants are the ones doing both (Park et al., 1993). Moreover, when community members are involved and explore the meaning and reasons for change, there is an increased commitment and ownership in the discussion and action for change (Hobbs, 1987). Reason and Bradbury (2006) note that the process of the inquiry is as important as the outcome knowledge generated. This research approach employs both qualitative and quantitative methods. Although, qualitative methods are used when an issue or topic needs to be explored (Creswell, 2007). Using qualitative methods helps to provide a more contextual understanding of issues and barriers related to health, as well as inform health promotion program planning efforts (Farquhar, Parker, Schulz, & Israel, 2006). Moreover, the participatory nature of this approach relies on the principle of empowerment in mobilizing a community to dialogue about their needs and to collectively identify actions that will positively affect their own lives (Hobbs, 1987). It is more than a collection of facts; it is an understanding of the experiences and realities of people's lives from their perspective.

Action research is an umbrella term to include community-based participatory research
CBPR (Cargo & Mercer, 2008; Minkler, 2000). CBPR is an approach to research that has been utilized to improve the health and well-being of communities and reduce health disparities by engaging the community members and community partners in exploring the complex, contextually relevant determinants of health (Israel, Eng, Schulz, & Parker, 2005). Research is conducted with community members involved in all phases of the research process resulting in culturally, contextually relevant interventions and policy changes. “The aim of CBPR is to increase knowledge and understanding of a given phenomenon and integrate the knowledge gained with interventions and policy and social change to improve the health and quality of life of community members (Israel, et al., 2005, p. 5). An important distinguishing feature of CBPR in health research is the shared power, shared decision-making, and co-learning between researchers and community members to accomplish changes within the community. This type of research brings scholarship and practice together to create positive, practical changes in communities facilitated by community members themselves.

**Participatory Research with Youth.** Participatory approaches are being used to bridge the gap between research and practice, promote social justice, and facilitate empowerment of the people in the issues that affect their health (Israel et al., 2005; Williams, Bray, Shapiro-Mendoza, Reisz & Peranteau, 2009). More specifically, participatory research is becoming a method used to engage and empower youth in addressing their specific health needs. Flicker (2008) described a youth project using a participatory approach to improve young people living with HIV. Burstein, Bryan, and Chao (2005) engaged high school and college students in participatory research to identify their needs and to problem-solve related to their various special health needs. Students involved in participatory research projects reported that they felt more valued and felt that they were an important part of the research process (Cargo, Grams, Ottoson, Ward, & Green, 2003;
Lind, 2008), but students identified needing guidance, support and supervision in the process (Delgado, 1996; Strack 2004).

Adolescents and teens have been engaged in various participatory research projects. The participatory approach has been a powerful approach in drawing youth in as change agents in their community for issues that relate to their lives (Flicker, Maley, Ridgley, Biscope, Lombardo, & Skinner, 2008). Participatory research approaches have been used to collaborate with youth in a variety of health promotion efforts. For example, these methods have been used with adolescents to design a drug resistance curriculum for youth (Gosin, Dustman, Drapeau & Harthun, 2003), a physical activity program for high school girls (Ward, Saunders, Felton, Williams, Epping, & Pate, 2006), and a primary pregnancy prevention program for Native American teens (Garwick, Rhodes, Peterson-Hickey & Hellerstedt, 2008). Horn, McCracken, Dino, & Brayboy (2008) reported that their efforts using participatory research with American Indian teens resulted in the development of new successful collaborations, a tobacco intervention, and culturally appropriate tools and resources associated with the tobacco intervention.

**Photovoice as a Participatory Method**

A participatory approach is important in understanding the particular culture and context of a community and in developing culturally and contextually appropriate health promotion interventions. The contextual data generated from participatory approaches cannot be captured through the use of traditional quantitative data collection methods (Horn et al., 2008). One means of gaining participation from community members is through the use of visual research. Participatory visual research is research that asks participants to develop drawings, photographs, murals or videos related to a theme as part of the research process (Lorenz & Kolb, 2009). One particular form of participatory visual research which has allowed various groups, including teens,
to give voice to their health concerns through the use of photographs is called photovoice. Developed by Wang & Burris (1994), Photovoice is a participatory method through which people/participants identify and represent their community’s issues and assets through the use of photographs.

Photography has an important influence on our consciousness. It is a lens through which we gain information and engage in reflection about our environment and ourselves (Bolton, 1989), but it can also assist others in seeing the world from our perspective. Photography is a form of communication that can provide clear statements and depth of information; it is a vehicle of communication that provides a narrative voice. Anthropologists have used photographs to elicit cultural characteristics, as well as emotions that would otherwise be hidden (Collier, 1957). The process of photovoice allows participants to frame and define important issues and strengths of the community through the use of photographs. Photovoice, as a participatory method, is able to evoke context-rich data which may allow us to see cultural norms and issues that may otherwise be missed through use of a survey. Visual images portray a more concrete representation of community members’ reality resulting in more engaged community discussion. For example, Appalachian high school youth photographed the strengths and weaknesses of their community’s health and presented them in an “issues” booklet at a community forum. The photos and narratives added additional layers in the identification of community needs and solutions and elicited better community dialogue because community members were more engaged by the photographs (Downey, Ireson, & Scutchfield, 2009).

The purpose of photovoice is to 1) enable people to reflect their community’s issues and strength through photographs, 2) promote critical dialogue and knowledge about important issues through the discussion of photographs, and 3) reach decision makers or influential people through
the exhibition of the photographs. For these reasons, particularly the first, it is an ideal method for conducting a needs assessment in health promotion program planning. Five key concepts related to using photovoice to create shared knowledge and commonalities within a group are described by Wang and Pies (2004). The key concepts include 1) images teach; 2) photographs can inform and influence policy; 3) community members should create the images; 4) those with power to implement change must be brought to the table; and 5) implicit in photovoice is individual/community action.

**Theoretical Framework of Photovoice**

Photovoice draws from work in critical consciousness, feminism, and documentary photography (Wang & Burris, 1994). In documentary photography, photographers attempt to capture candid photographs of people and places that are often unseen or hard to reach. Wang & Burris (1994) point out that “documentary photography has portrayed the social and mental wellness of both its subject and the society of which they are a part” (p.175). Documentary photography, developed in the 1930’s during the Great Depression, has been characterized as the “social conscious through visual imagery”. It persuades as well as informs. Historic and contemporary use of documentary photography has informed photovoice. Dorthea Lange and Walker Evans were photographers involved in a Department of Agriculture’s project which sought to depict rural poverty, improper land use, the decline of the small farming community, urban deterioration, and the relationships among them (Stryker, 2010). Photovoice has its roots in documentary photography, but in contrast to documentary photography, puts cameras in the hands of the oppressed or marginalized so that they can reflect their own truths and circumstances in an effort to promote change.

The application of critical consciousness to photovoice is borrowed from Brazilian
educator, Paulo Freire’s work. He identified three levels of consciousness which affect individuals’ or groups’ interpretations and subsequent behaviors related to their existence (Freire, 2000). In the magical level, people live within their existing circumstances or existence. They remain oppressed partly due to passivity and an attitude of helplessness. As they move into the naive level, they begin to interpret social condition as exploitive, but transfer their issues onto one another in the form of blame. Finally, as they move in the highest level of critical consciousness they come to realize that their attitudes are responsible for keeping them where they are or moving them forward and they accept and affirm their responsibility for change in their own lives (Carlson, Engebretson & Chamberlein, 2006; Freire, 1973). Freire encouraged researchers and educators to draw representations of emotional issues or themes of the experiences of village life and work. These drawings then prompted discussion and became the vehicle to co-create knowledge and meaning, thereby engaging participants in their own learning. Critical consciousness, then, becomes the motivation to change attitudes (increasing personal responsibility for a problem) and behaviors (increased capacity for individual choices).

Photovoice is grounded in feminist theory not from the standpoint that it can only be used with women, but that it can be used with people who need to be empowered and need to have a voice (Wang & Burris, 1994). Feminist theory holds that women are experts on their own lives and they should be empowered to create knowledge. This concept can be transferred to other groups who have traditionally been marginalized or not in a position of power, including children. Wang & Burris (1997) point out that:

Because virtually anyone can learn to use a camera, photovoice may be particularly powerful not only for women, but also for workers, children, peasants, people who do not read or write in the dominant language, and people with socially stigmatized health
Grounded Theory as a Guide to Thematic Analysis of Photovoice

Grounded theory offers systematic strategies for qualitative research practice and data analysis. The framework of grounded theory has been an analytical approach for research studies using photovoice (Downey, Ireson & Scratchfield, 2009; Streng, Rhodes, Ayala, Eng, Arceo & Phipps, 2004; Vaughn, Forbes, & Howell, 2009; Vaughn, Rojas-Guyler, & Howell, 2008; Wang & Burris, 1997)). The goal of grounded theory is to collect and analyze data and derive themes and potential abstract theoretical explanations of social processes (Charmaz, 2006; Corbin & Strauss, 2008; Glaser & Strauss, 1967). Glaser and Strauss (1967) outlined the components of grounded theory to include: 1) concurrent involvement in data collection and analysis, 2) constructing analytic codes and categories from data rather than predetermined hypothesis, 3) using a constant comparative method to compare data at each stage of the data collection and analysis, 4) advancing theory development at each stage of data collection and analysis, 5) memo-writing to define the properties and dimensions of categories, 6) sampling to enhance and build on theory development rather than generalizability, and 7) conducting a literature review after the analysis of the data. Grounded theory process seeks to develop theory from the data (inductively) using coding strategies. Lincoln and Guba (1985) stated that

Grounded theory, that is, theory that follows from the data rather than preceding them (as in conventional inquiry) is a necessary consequence of the naturalistic paradigm that posits multiple realities and makes transferability dependent on local contextual factors. No a priori theory could anticipate the many realities that the inquirer will inevitably encounter in the field, nor encompass the many factors that make a difference at the micro (local) level.” (pp. 204-205).
Charmaz (2006) views grounded theory as “a set of principles and practices, not as prescriptions or packages,” (p.9) meaning that the process and techniques are flexible and can be adapted to meet the needs of the researcher. Wang and Burris (1997) describe the process of assigning codes (codifying) from meaning elicited through photographs. Participants share in the identification of issues, themes or theories. They state that “they may also codify themes or patterns or develop theories that are grounded in the data that have been systematically gathered and analyzed in collective discussion” (p.381). Wang and Burris (1997) go on to say that “when photovoice serves as a tool for participatory needs assessment, data analysis involves people in defining issues. Such an approach avoids the distortion of fitting data into a predetermined paradigm; it enables us to hear and understand how people make meaning themselves or construct what matters to them.” (p. 382).

**Photovoice in Health Education Needs Assessments**

Photovoice has been used to conduct needs assessments in health education. The visual images produced have provided a unique lens from which to see the needs of an individual or group. In addition, the photographs provide a powerful image of a community’s resources, strengths and obstacles (Wang 1999; Wang & Pies, 2004). In using photovoice as a needs assessment method, a three-staged process, based on Freire’s three stages of empowerment education, is used to engage the participants in the examination of the photos. The first stage is understanding the issues based on active listening. In photovoice, this includes the selection of the photographs and the individual creation of the narrative which frames the meaning of the photograph from the photographer’s perspective. The narratives can be written or they can be elicited through recorded discussions with a research team member. Once the individual narrative is completed, the next phase begins. The second step for empowerment education is the
participatory discussion within the group and critical thinking about the issues the photographs depict using a problem-posing methodology. This methodology aims to answer the question “what can we do about the problem, while realizing that change takes time?”. In photovoice this includes storytelling within the group about the individual meaning of the photos followed by a discussion using the acronym SHOWeD (Wallerstein & Bernstein, 1988; Wang & Burris, 1997). Storytelling can be facilitated by the use of questions which help the participants to focus on particular aspects of the photograph. The questions used for discussion were adapted to include descriptive terms which provided clarification for the discussion process based on recommendations from Mary Brydon-Miller through personal communications (2010). The questions included:

1) What do you **see** here? (Observation)
2) What is really **happening** here? (Interpretation)?
3) How does this relate to our lives? (Contextualization)
4) Why does this situation, problem, or strength **exist**? (Politicization)
5) What can we **do** to improve the situation, or to enhance these strengths or problems? (Action)

This process helps the participants and researchers to get at deeper and higher levels of meaning about the photos and the issues. These questions also intended to move the critical dialogue from the personal level to the social context and then to the action stage. The final step in the questioning process includes the identification of necessary actions by the participants during the discussion. In photovoice, this involves identifying the main themes that surface from the photo discussion (Wallerstein & Bernstein, 1988; Wang, 1994).

An outline of the steps used in conducting a photovoice project include:

1. Select/recruit policy makers and/or community leaders
2. Recruit photovoice participants from the community
3. Conduct the photovoice training /discuss risk/obtain informed consent
4. Conceptualize the problem with participants
5. Devise initial themes for taking pictures
6. Distribute cameras to take pictures
7. Facilitate group discussion,
8. Engage in critical reflections and dialogue
9. Select specific photographs for discussion
10. Develop context and storytelling related to the pictures
11. Codify the issues, themes and theories
12. Invite policymakers or those in a decision making role as the audience to present the findings
13. Prepare the photos and captions for presentation at the community forum, and
14. Reach decision makers who are in the position to be able to make change

(Wang, 1999; Wang, Yi, Tao, & Carovano, 1998).

**Relevant Studies Using Photovoice**

Photovoice has been used to explore various health needs and issues in diverse groups. The first photovoice project explored Yunnan women’s reproductive health and development (Wang, 1994; Wang et al., 1998). The photographs helped these women develop commonalities and differences among their experiences of “girlhood” and motherhood with the goal of improving the women’s health status in their villages. Photovoice has also been used to explore mental illness in Connecticut (Bowers, 1999); families living in Contra Costa, California (Spears, 1999); planned parenthood youth health educators in Cape Town, South Africa (as cited in Streng et al., 2004);
the homeless in Ann Arbor (Killion & Wang, 2000; Wang, Cash & Powers, 2000); family, child
and maternal health (Wang & Pies, 2004); African-American breast cancer survivors in North
Carolina (Lopez, Eng, Robinson & Wang, 2005); and first-time, at-risk mothers and infants in
Cincinnati (Vaughn et al., 2009). The common theme running through these studies is that they
worked with adult groups who needed their voice heard and who traditionally have not had access
and power. Furthermore, these studies all looked to explore health or a specific health need from
the community member’s perspective through the use of photovoice to promote change.

Other studies used photovoice specifically to examine issues using children or adolescents;
youth became advocates for change through the photovoice process (Wang 2007). Strack et al.
(2004) used photovoice in an after-school program to test the effectiveness of this method
(photovoice) with youth in an attempt to provide a curriculum that could be reproduced. Newly
immigrated Latino adolescents participated in photovoice to provide insight into their experiences
and quality of life (Streng et al. 2004). The themes that emerged from the photos provided
contextual descriptions of the Latino adolescents’ issues as well as what helped their transition and
acculturalization. Wilson, Dasho, Wallerstein, Wang, and Minkler (2007) conducted a CDC funded
photovoice project with underserved adolescents in an after-school program. This project sought to
empower youth to discuss the condition of their school and to take action to create positive
changes. Results from this project provided specific recommendations for future photovoice
projects with youth related to curriculum development, facilitation and duration of the project
(Wilson, Minkler, Dasho, Wallerstein, & Martin, 2008).

Additional photovoice projects with youth included engaging them in the process of
identifying health influences (health, food, and stress) which could lead to health promotion
through advocacy (Necheles et al., 2007); Latino girls’ perceptions of health as a needs assessment
(Vaughn et al., 2008); high school youth in a rural Appalachian county to explore their health issues (Downey, Ireson, & Scutchfield, 2009); and college students to complement the National College Health Assessment survey data (Goodhart, Hsu, Baek, Coleman, Maresca, & Miller, 2006). One research study with urban African-American teens used a mixed-method approach in which the teens completed questionnaires and journaling about stress and coping and then used the data to produce a health communication message through a video production. These exemplars of the use of photography and visual representations as a means to give voice to those with less power show the flexibility and the dynamic nature of the photovoice method.

**Focus Groups as a Participatory Method**

Focus groups are a process for data collection that was borrowed from the field of marketing (Gilmore & Campbell, 1996). They are a participatory approach to qualitative data collection in which community members are engaged in dialogue through a guided discussion about a particular issue (Minkler & Hancock, 2003). The goal of a focus group is to facilitate discussion related to questions on a particular topic with a group of six to twelve participants. Depending on the goal of the focus group and the number of potential participants, groups can be either homogenous or heterogeneous to capture various perspectives on the topic. Discussions are conducted in a confidential and non-threatening manner with the goal of having participation from all members of the group, thereby avoiding domination by one group member. An interview guide is developed with seven to ten questions and then a facilitator leads the group through the questions. The questions are designed to evoke knowledge, values, attitudes and beliefs about a particular topic or aspect of the community, as well as to identify existing strengths and generate ideas about potential needed changes (Minkler & Hancock, 2003). Discussions are recorded and transcribed or summarized through field notes. This wealth of data is analyzed for dominant
themes which can then be used to determine priority health issues, to identify assets and resources of the community that can be utilized, and to inform the design of interventions or programs. This participatory, problem-identification process is valuable in getting input from stakeholders which can inform more sustainable health promotion efforts.

**Focus Groups in Health Education Needs Assessments**

Focus groups as a method of data collection have become popular as part of a multi-component needs assessment process in health education (Nakkash, Soweid, Nehlawi, Shediac-Rizcallah, Hajjar, & Khogali, 2003). Butler & Butler (1987) identified some of the strengths of using a group approach such as focus groups in a needs assessment. They suggested that it facilitates local participation; elicits participation and information from community members who may not otherwise participate; can bridge cultural barriers; can enhance involvement, motivation and enthusiasm; stimulates creative group energy; provides a more accurate picture of local situations and social interactions; can be low cost; generates data quickly; builds leadership skills and capacity; and can link data to action. Focus groups have been used in needs assessments in various health education arenas. For example, a focus group study was conducted in three schools to explore and discuss the sexual health needs of teenagers (Lester & Allen, 2006). Schaffer, Mather and Gustafson (2000) used focus groups to identify perceptions of health, health care needs and health care service delivery in homeless shelter residents, while Davies et al. (2000) used focus groups to identify college men’s health concerns, barriers to seeking help, and recommendations to help college men adopt healthier lifestyles. Finally, Parker and Logan (2000) conducted an exploratory study using focus groups to examine students’, teachers’, and parents’ perceptions the health needs of school-age children.
Relevant Studies Using Focus Groups

Several recent studies have used focus groups specifically to explore stress in teens. Most recently, Scales, Monahan, Rhodes, Roskos-Ewoldsen and Johnson-Turbes (2009) used eight focus groups to explore adolescents’ perceptions of the relationship between smoking and stress to understand how/where they learn that smoking is an acceptable method of coping or reducing stress. To better understand the potential role of demographic influences, the focus groups were segmented by race/ethnicity, gender and region. Falkin, Fryer and Mahadeo (2007) used six focus groups to explore the stress involved with smoking cessation in teens. They reported rich data which showed that the stress of quitting was compounded by changed relationships with family and friends. Another study used the focus groups to inform and fine tune the development of a program which sought to track teens’ experiences of mood, stress, and coping using cell phones (Reid, Kauer, Dudgeon, Sanci, Shrier, & Patton, 2009). Schulz, Parker, Israel, Allen, Decarlo, and Lockett (2002) used focus groups (as well as interviews) to develop a stress process model which was used to explore the relationship between the stressors of social conditions and health, design interventions to address the stressors, and conduct an evaluation. Specifically, they used focus groups to explore stressors within the context in which they were experienced. They termed this new use as context-specific stress process model. The model suggests that exposure to stressors in the social and physical environment influences health, but intervening factors, such as social support, enhanced coping mechanisms, role models, health status, exercise, and diet can buffer the effects of chronic stress. The focus group results in their study were also used to create specific questionnaire items used in a survey of area residents. Finally, a series of focus groups were used to identify sources of stress and coping in 10th grade high school students as a way to refine and inform the development of a questionnaire to be utilized as part of a larger study (Mates & Allison,
These examples present the flexibility of the uses of focus groups to provide context rich data to address needs, inform quantitative instruments, and assist in the development and evaluation of health promotion programs.

**Summary**

Research has shown that stress impacts teenagers’ quality of life and stress left unmonitored in teens has led to an increase in risky behaviors (smoking, alcohol and drug use, and unprotected sex) and chronic mental health concerns such as depression and suicide. Assessing coping skills and strategies is important in decreasing the risks associated with chronic stressors of teen life. Participatory needs assessment research is a valuable approach to addressing the needs of teens as well as the strengths that exist to help them cope. Photovoice is a participatory needs assessment method that allows the issue to be framed through the lens of those experiencing it. This process has been utilized with marginalized and underserved adults and teens to assist them in voicing their needs, but photovoice has not been utilized in the context of an upper-middle class, high-achieving community of teens. Moreover, the vast majority of research related to stress in teens has been with low socioeconomic status and/or minority students. Suldo, Shaunessey, Michalowski and Shafer (2008) drew attention to the fact that there is a dearth of research regarding stress in teens in high-achieving schools. They also identified a need for more research with students in rigorous curricular programs to determine the relationship between mental health problems, stress and coping behaviors. To address this gap in the literature, photovoice was chosen as a needs assessment method to explore teen stress in an upper-middle class, high-achieving community.
Research Questions

The questions for this research study are:

1) What are the perceived stressors of ABC High School students?

2) What are the perceived stress-related coping skills and strategies of ABC High School students?

3) What are the support systems, assets, or strengths of the community, school, parents and/or friends that are available to assist in coping with stress?

4) What interventions, processes or programs could be put into place to help address the needs of ABC High School students in dealing with stress?

5) Does photovoice, as a needs assessment method, serve as an effective vehicle for the exploration, expression and dialogue around perceptions of stress for ABC High School students?

6) Does the process of photovoice, as a needs assessment method, help students to increase their understanding of their stressors and improve or increase strategies for coping?

7) What are parents’ perceptions of their student's stressors, stress levels and coping strategies?
   a) Do these perceptions align with the students' perceptions?
   b) Is there a gap that exists between parents’ and students' perceptions?
   c) If a gap exists, how can the gap be closed?

8) What are the faculty/staff perceptions of students' stressors, stress levels and coping strategies?
   a) Do these perceptions align with the students' perceptions?
b) Is there a gap that exists between perceptions of faculty/staff and students?

c) If a gap exists, how can the gap be closed?

The next chapter provides the outline and rationale for the methods of this research study.
Chapter 3

Methods

This chapter provides an overview of the rationale for the methods chosen for this research study, specifically photovoice with students and focus groups with parents and faculty/staff. The Institutional Review Board (IRB) approval process, selection of the population, and the research setting are described. Details are given about data sources, collection protocols, data preparation and the analyses used to answer the research questions. Finally, the method and plan for dissemination of the results are discussed.

Overview

The purpose of this action research study was to conduct a participatory needs assessment in a suburban upper-middle-class high school in southwestern Ohio. The goal of the needs assessment was to explore, through a participatory action research approach, high school students’ stressors and coping skills and strategies; to identify the assets of the school and community which help them cope; and to identify what could be put into place to further assist them in coping.

Chapter two highlighted the literature on the use of needs assessments in health education and more specifically the use of photovoice and focus groups as participatory needs-assessment methods.

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4) What interventions, processes or programs could be put into place to help address the needs of ABC High School students in dealing with stress?

5) Does photovoice, as a participatory needs assessment method, serve as an effective vehicle for the exploration, expression and dialogue around perceptions of stress for ABC High School students?

6) Does the process of photovoice help students to increase their understanding of their stressors and improve or increase strategies for coping?

7) What are parents’ perceptions of their student's stressors, stress levels and coping strategies?
   a) Do these perceptions align with the students' perceptions?
   b) Is there a gap that exists between parents’ and students' perceptions?
   c) If a gap exists, how can the gap be closed?

8) What are the faculty/staff perceptions of students' stressors, stress levels and coping strategies?
   a) Do these perceptions align with the students' perceptions?
   b) Is there a gap that exists between perceptions of faculty/staff and students?
   c) If a gap exists, how can the gap be closed?

The methods used to answer these research questions included photovoice with high school students, a feedback session with the students, a focus group with parents, a focus group with faculty/staff, and field notes. Thematic analysis of the qualitative data was conducted using techniques informed by grounded theory.
Research Setting

This southwestern Ohio community, also referred to as “the bubble” by residents, is a close-knit suburban community of approximately 8,000 residents. This community is located just outside the major city limits, but has a small-town feel with its historic homes and a “main street” where the community residents shop and gather for events. The quaint, tree-lined community consists of mostly families, referring to households with parent(s) and children (73%). Sidewalks connect the community east to west and north to south. The racial diversity of the community is 88% White, 9.5% African American, 0.1% Native American, 1.4% Asian, 0.4% from other races, and 1.1% from two or more races. Hispanic or Latino of any race was 1.3% of the population (United States Census Bureau, 2000).

The ABC High School is a top-rated public high school in a Southwestern Ohio. The school district has ranked among the top 100 in the nation (Unites States Census Bureau, 2000). The high school students have excelled on state and high-stakes testing and are challenged with a rigorous internationally and nationally known curriculum and advanced placement courses. The community values and supports education. The school district feels pressure to rank nationally on test scores and taxpayers demand a return on their high home prices and tax investment through exceptional academic performance and a school district reputation of excellence. The district has one high school serving approximately 700 students in grades nine through twelve. Each grade consists of approximately 175 students.

The school district established a wellness committee in 2007 which consists of district faculty, staff, administrators, parents and high school students. During meetings in the 2008-2009
school year, students on the wellness committee identified stress as a potential issue (the establishment of the wellness committee and identification of stress as a potential issue were not part of this research study, but led to the conceptualization of the research study). Related to the discussion of stress, was discussion about the Parents’ Resource Institute for Drug Education (PRIDE) survey data (International Survey Associates, 2006). The PRIDE survey measures students’ alcohol, tobacco and other drug use in grades 6 through 12. It also measures other behaviors and issues that can affect learning such as family, safety, discipline, activities and gang involvement (International Survey Associates, 2006). Each year the school district administers the survey. The survey is also administered to other communities in the area as well as across the country. The results of the survey indicated that this community had underage alcohol consumption rates (regular use) higher than the regional and national averages (25.2% versus 20 and 21.1%, respectively) and that alcohol consumption was shown to increase dramatically from 9th through the 12th grade (11% reported regular use in 9th grade, 40% in 10th grade, 44% in 11th grade, and 50% in the 12th grade). Students on the wellness committee suggested that the stress levels could be related to increased rates of alcohol use. One intended outcome of the research study was to create a dialogue with school and community leaders about the stress of teens and to disseminate the students' findings through a community forum. As a result, it was hoped that sustainable changes could be identified and implemented to improve the quality of life of the high school students and potentially affect rates of alcohol use.

**Researcher Position**

My position in this study was as both an insider and an outsider. The insider role stems from having lived in the community for 8 years and having children attend ABC Schools. I initiated and fostered relationships with the school principal, faculty, and staff through my
involvement in the high school during my children’s years there. In addition, one of my children participated in the advanced photography course, therefore I knew the advanced photography teacher through this connection. In addition, I have been a member of the wellness committee as a health educator and as a parent for over two years. These two insider positions have allowed me the insight within the community to understand some of the issues related to health and have allowed me the access to the high school students, as well as the trust of the other members of the wellness committee and the high school staff. Although the school and staff are familiar to me, I am an outsider by the nature of my connection to the current students and the current school year. My children are no longer at the high school, so I have had no recent direct connection to teachers, staff and the principals. In addition, I have no previous relationship with this group of students except that some of the students are familiar because of relationships they had with my children who previously attended the high school. I am not employed by the school; therefore, I am not at the school on a regular basis.

Participants

This research study used a purposive sample. It was purposive in that the students enrolled in the advanced photography class at the high school in the winter of 2010 were selected to be the eligible participants in the photovoice process because the project aligned with the advanced photography teacher’s assignment related to photography for social change. Morse (1986) suggested using both appropriateness and adequacy as criteria for sampling. Appropriateness was met because these photography students were well suited for the purpose of the study. Additionally, the teacher, principal, and I thought that they would provide sufficient, high-quality information (through the photographs and discussion) meeting the criteria for adequacy. Using photovoice with this group provided student perspectives as well as rich data that related
specifically to the context of their lives. This is in contrast to a probability sample used in quantitative research with the goal of being able to generalize the findings to a larger population. Patton (2002) stated that sample size in qualitative research depends on the research purpose. Therefore, because the intent of this study was to collect rich, contextual information, which requires more time and resources, the sample size was purposefully small. Strauss and Corbin (1998) also refer to theoretical sampling in qualitative research which uses participants who can contribute experiences and rich data which lead to the development of codes and theory.

The recommended number of participants in a photovoice project is 7-10 (Wang, 1999). The number of students enrolled in the advanced photography class was 10, which was an ideal number for this research method and purpose. This number of students was consistent with other photovoice research studies.

**Human Subjects Protection**

Human subjects approval was received in March 2010 by the Institutional Review Board (IRB) at the University of Cincinnati. A letter of support was obtained from the principal at the high school and the advanced photography teacher and was included in the review application.

**Research Process and Data Collection**

**Entrance.** I contacted the principal at the high school and met with him in the early fall of 2009 to discuss the project and request access to the students from which to recruit a group of students. I also asked if I might contact the photography teacher, Ms. Smith, to solicit her assistance in teaching students who would be in the project about the basics of photography and the use of the camera. After discussion about the best time frame to conduct the research project with the school, the principal, and photography teacher, Ms. Smith, requested that I work with the students in her second-semester advanced photography class in the spring, because she had a project that
she usually conducts with the students related to photography, social justice, and social change. In this class, students not only take the photos, but they also develop their own black and white photos to learn about various photographic techniques. Although this was not how most photovoice projects have been structured (most projects were conducted using instant or digital cameras, meeting after school once per week for a period of two to three hours, and students did not develop their own photos), I was glad to have the opportunity to work with the students and the photovoice project.

The second semester photography class met every weekday from 2:00 until 2:50 PM. From January through March 2010, I visited the school and classroom and communicated via email once per week to deepen the relationship with Ms. Smith and to determine if the plan I had outlined needed to be adjusted based on her experience, needs, and time frame. Communication and visits were limited due to her extremely busy schedule. Throughout the research study, I had to relinquish some control to the teacher, such as in this case, and work within the boundaries and limitations of the school. Even though I would have preferred to have had more time to build rapport with the students prior to the start of the project, Ms. Smith felt it important to keep them focused on the current projects and not potentially distracted by upcoming projects. I had hoped to be able to introduce myself and the project to the students in February or March and to continue to have some contact with them to build relationships and trust prior to the project start in April, but she was reluctant to tell the kids about the project ahead of time. The photovoice project started immediately following spring break, so I sensed that, until then, Ms. Smith was trying to keep the students’ attention and productivity elevated. Ultimately, I was able to build rapport quickly through one-on-one and small group conversations with the students during their work in the classroom and the dark room.
**Advanced Photography Class Structure.** Throughout the research process, three classrooms were in use by the students in the advanced photography class. The main classroom is where all group discussions and formal instruction occurred. The tables were organized in a U-shape because the class is usually small and this configuration facilitates discussion and demonstration. The second classroom was the developing room which was the size of a walk-in closet and was located down the hall from the main classroom. It contained the chemicals and equipment that were needed to develop and dry the negatives after the film has been taken out of the camera. Smaller amounts of time were spent in this classroom, but the process of developing and drying the negatives required one full class period (50 minutes).

The third classroom was the dark room which was also located down the hall from the main classroom. It had a spiral door which blocked light so that students could enter and exit as they needed without exposing other students’ negatives and photos to the light. The dark room contained approximately ten work stations where students transferred the images from the negative to the photo paper. The students moved the photo paper with the transferred image to sinks which contained tubs of developing chemicals and washing solution. These sinks were lined up along one wall in the dark room. The photo paper was submerged into these tubs of chemicals (first the developing “bath” and then the washing “bath”). This process was used to develop the black and white photographs. The wet photo was then placed on a drying rack located on an adjacent wall. Developing one photo from a negative required one full class period, but often required more time depending on the experience and technique of the student in adjusting the correct exposure time of the negative and the processing time in the developing bath. All of these factors (the various rooms in which the process occurred and the technical nature of developing a quality photograph) contributed to the somewhat chaotic and non-linear organization of the
research process in which students independently floated among the three rooms. Because of this, students were rarely all together in the main classroom, except for the beginning of the class period and when they were instructed to be in the main classroom.

**Photovoice.** The purpose of photovoice in this research study was to 1) enable the students to illustrate their stress and coping through photographs, 2) promote critical dialogue and knowledge about stress and coping through the discussion of photographs, and 3) reach parents, community members, and school personnel and administration through the viewing of the photographs. The steps to conducting this photovoice project included:

1) Define the broader goals and objective of the project
2) Conduct the photovoice training
3) Conceptualize and discuss the problem
4) Devise prompts or photo assignments for taking pictures
   a) The things that create stress, b) Coping with stress, c) Moving on past the stress
5) Take pictures
6) Develop film
7) Select and print specific photographs for discussion
8) Provide context and engage in storytelling related to the pictures
9) Facilitate individual and group discussion
10) Engage in critical reflections and dialogue
11) Codify the issues and themes
12) Recruit school district parents, faculty/staff, community agencies or those in a decision making role as the audience to present the findings
13) Prepare the photos and captions for presentation at the community forum
14) Reach decision-makers who are in the position to be able to assist with change

(Wang & Burris, 1994; 1997).

**Photovoice training and assignments.** Ms. Smith’s assigned project relating to social change began in early April 2010 and ended mid-May. I was in the classroom for a total of six weeks to include a total of 24 sessions. Table 1 provides an overview of the sessions.

Table 1
*Outline of Project Sessions*

<table>
<thead>
<tr>
<th>Session/week</th>
<th>Activity</th>
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| 1/week 1     | Introduction of Researcher  
               Introduction to photovoice Project  
               Icebreaker Activity #1 (Getting to Know You: name, grade, something unique about yourself)  
               Distribution and explanation of project consent forms  
               Discussion of the use of pseudonyms for the project |
| 2/week 1     | Viewed exemplars of other photovoice projects on internet  
               Icebreaker #2 Two Truths and a Lie: Provide name and tell 2 factual pieces of information about yourself and one false one. Guess which one is false.  
               Discussion about the purpose of photovoice  
               Distribution of project notebooks  
               Discussion about materials in notebooks & project timeline  
               Review of consent form/collection of any consent forms  
               Generation of ground rules for group discussions  
               Discussion of pictures as metaphors- intro to photo ethics |
| 3/week 1     | Icebreaker #3 Birthday lineup game; Guess whose favorite TV show  
               Collection of consent forms  
               Background questionnaire  
               KWL for stressors and coping  
               Discussion of stress and stressors  
               Discussion of first photo assignment  
               Photo ethics |
| 4/Week 2     | My introduction to the dark room and the student process of developing and printing pictures  
               Individual student discussion about 2 photos |
| 5/week 2     | Review of contact sheet & individual student discussion(three students) about 2 selected photos |
| 6/week 2     | Brief update of where students were in photo process and where they would be working (dark room, main classroom, developing room)  
               Review of contact sheets & individual student discussion (3 students) on photos (main classroom)  
               Informal conversation with 2 students in developing room |
<table>
<thead>
<tr>
<th>Week</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/ week 2</td>
<td>Pass out “SHOWeD” questions for students to start to think about the photos as they began to journal and create narratives for their photos. Brief individual discussion about coping and next photo assignment.</td>
</tr>
<tr>
<td>8 9 10/week 3</td>
<td>Group Discussion of stress/stressors photos (those students who had photos ready) (main classroom)</td>
</tr>
<tr>
<td>11/ week 3</td>
<td>Brief individual discussion about coping and next photo assignment. Group Discussion of stress/stressors photos (those students who had photos ready) (main classroom)</td>
</tr>
<tr>
<td>12/week4</td>
<td>Printing contact sheets, individual student discussions about photos. Focus groups at the High School- after school and in the evening.</td>
</tr>
<tr>
<td>13/ week 4</td>
<td>Only 1 student in class- was supposed to be group photo discussion day. Moved to next week. Photo discussion with 1 student. Scanned and labeled current photos. Group photo discussion of coping. Group discussion of next photo assignment-“moving on”</td>
</tr>
<tr>
<td>14, 15 &amp; 16/ week 4 and 5</td>
<td>Students photographing. Scanned and labeled coping photos into computer. Students photographing, developing, and printing contact sheets. Individual and small student discussions about community forum (main classroom). Small group discussion of AP stress and feedback from focus groups in ceramics classroom (AP exams next week). Attended Art show meeting to ask permission to have space for student photos/community forum.</td>
</tr>
<tr>
<td>17 &amp; 18/ week 5</td>
<td>Students photographing. Scanned and labeled coping photos into computer. Students photographing, developing, printing. Individual student discussion. Matting current photos to prepare for art show.</td>
</tr>
<tr>
<td>19/ week 5</td>
<td>Final group photo discussion- moving on. Forum discussion. Feedback session/ process evaluation. Final discussion of what can we do about it?</td>
</tr>
<tr>
<td>Session 20, 21 22/ week 6</td>
<td>Final prep of photos for art show- mounting, matting, create tags for art show. Creation of narrative to be attached to photo, mounted on red cardstock paper. Review of transcripts for clarification concurrence. Completion of consent forms to use photos. List of students available to be at art show/community forum. Email to parent and faculty/staff listserv about Photo exhibit at Art show. Final thank you notes to each student in the project.</td>
</tr>
<tr>
<td>23</td>
<td>Community Forum at the Community Art Show.</td>
</tr>
<tr>
<td>24</td>
<td>Final prep of photos for art show- mounting, matting, create tags for art show. Creation of narrative to be attached to photo, mounted on red cardstock paper. Review of transcripts for clarification concurrence. Completion of consent forms to use photos. List of students available to be at art show/community forum. Email to parent and faculty/staff listserv about Photo exhibit at Art show. Final thank you notes to each student in the project.</td>
</tr>
</tbody>
</table>

I met with the students in the classroom in early April to begin the research process and class assignment. During the first week (sessions one through three), the goal was to introduce the photovoice method; outline the details and length of the assignment, as well as how the assignment would be used as part of the research process; generate ground rules to follow during
subsequent discussions; view samples of photovoice projects on the internet to get an overall idea of how the process has been used with other groups; discuss photography ethics and power; and begin to build rapport with the students through icebreaker games. The training sessions, group discussion and individual discussions were audio-recorded and transcribed.

The first day in the classroom was Monday April 5th which was the first day of school after spring break. The curriculum for this class period is provided in Appendix A. I introduced myself and provided a brief description of the project. I then conducted icebreaker activity #1 *Introductions* (Appendix B) to get to know the students. In this activity the students introduced themselves and then described something unique about themselves. After introductions, I passed out the consent forms (Appendix C) related to the research study. Students were given the instructions for the project and how the data and information from the project would be used for research purposes. This led into the discussion of the consent form. I indicated that students did not have to participate in the research study, but they did have to complete the project. Ms. Smith explained that the students would receive points for the production of two photos each week (for a total of six photos each). She explained that the focus of the grading/points for the photos was not all related to the technical qualities of the photographs as is the usual procedure, but that we were looking for photos that generated meaning for each student and had good technical characteristics. Ms. Smith was solely responsible for assigning grades for the students.

The informed consent document was a combined parental consent and student assent form. Students, who were not 18 (n=7), had to have parental consent. Students who were 18 (n=3) were able to sign the consent for themselves. All students had an opportunity to ask questions about the research study. A letter was sent home to parents with the students detailing the research study and providing an extra copy of the consent form. Parents and students were instructed to contact
me if they had any additional questions related to the research study. Students were asked to return consent forms within the next two days whether or not they were participating. They were instructed to write “not participating” on the consent form when they returned in order to protect the identity of those who chose not to participate. All students chose to participate in the research study (n=10).

Because Ms. Smith needed to finish up details from a previous assignment, the next day in the classroom was Thursday, April 8th, 2010 (Appendix D). Students each received a project binder with a calendar of the project timeline (Appendix E) and the forms that were needed for the research project. The forms included the background questionnaire (Appendix F), the What we know-What we want to know-What we learned (K-W-L) sheet for stress and stressors (Appendix G), the K-W-L sheet for coping (Appendix H), consent form for adults in photographs (Appendix I), and consent forms for minors in photographs (Appendix J). Other photovoice projects from the internet were shown as exemplars of the process and photos. We participated in Icebreaker #2 called “two truths and a lie” (Appendix B) to get to know each other better and feel more comfortable sharing information. After the completion of this game, I outlined the details of the project again, which then led into a discussion about ground rules for discussions within the class due to the potential sensitivity and personal nature of the topics. The three main ground rules were: (1) respect for each others’ ideas and stressors, (2) confidentiality, and (3) listening while others are talking or sharing (Appendix K). These were written on large poster board paper and displayed in the room during the course of the project as a reminder.

The third day in the classroom was Friday April 9th. The curriculum for this class period is provided in Appendix L. We started with Icebreakers 3 and 4 (the birthday lineup and guess whose favorite TV show- Appendix B). The students completed their background questionnaires and the
educational activity known as K-W-L (know, want to know, learned) for both stress and coping (Ogle, 1986). The K-W-L activity was designed to have students think and write about what they already know about stress and coping and then formulate questions about information they still need or want to know. The final step (what I learned) was completed after the photovoice process ended (Ogle, 1986). The K-W-L activity led to a discussion of stressors framed by the discussion questions prepared (Appendix M). At one point during the discussion one of the students reminded us of the ground rules as a response to hesitation in sharing. The students were candid about their experiences and offered insight into their feelings of stress. The KWL writing and discussion gave them a chance to reflect and identify the stressors and initially start to formulate thoughts about potential photographs. As a group, we discussed the concept of stressors and began identifying things that created stress. This discussion led to the decision to frame this as the question to be used as a prompt for the photographs that the students would be taking with their own cameras and black and white film. The photo assignment prompts were given on Fridays whenever possible to give the students the weekend to take pictures. The first question was “what are things/situations that create stress for you?”. This allowed for a natural segue into the discussion of photo ethics (Wang & Redwood-Jones, 2001).

Because the students had recently completed a project taking photographs of homeless persons and had already discussed photo ethics, we were able to briefly review photo ethics questions and scenarios. The questions that were discussed in more detail included: (1) When and how do you ask participants to complete the consent form? (2) Should you take someone’s picture without their knowledge? (3) What situations or images would you want to avoid? (4) How can we take photographs to protect the identity of someone? and (5) How can symbols or metaphors of our feelings or expressions be photographed? (Wang and Burris, 1997). The complete list of photo
ethics questions is provided as Appendix N.

After the discussions ended, each student had the opportunity to ask any additional questions about the project or research process. I signed the consent forms once I felt assured that all questions had been answered, that students understood how the information was going to be used, and that students were willing to share their photographs and work to dialogue with the school/community about their collective issues of stress.

In week two, we had four sessions. We met Tuesday through Friday for sessions four through seven. We did not meet on Mondays when the students were scheduled to create negatives of the photos and dry their film. This process didn’t facilitate discussion because the room was very cramped, particularly when a number of students were in there together, and students needed to pay attention to the measurement of the chemicals and the technique in working with the film to avoid exposure. On Tuesday, students developed a contact sheet of the photos from the negatives and selected photos that could be printed. Students were instructed to select two images that they either liked the most or felt were most meaningful. After each student developed his or her contact sheet, I found it more meaningful and a better use of time to sit down individually with each student to discuss why the image was selected and the meaning it had for the student. I did this instead of having the student journal about the photos. This was done because, as we got into the project, I realized that the students were all at different phases of the process during the week. For example, even though photos were to be taken over the weekend, negatives developed on Monday, and the contact sheet printed on Tuesday, when I came in on Tuesday expecting to look at contact sheets, some students had not finished taking their pictures. This was more of the norm rather than the exception. There were only two students who consistently completed the steps of the process as they were scheduled. Weather, camera or film problems and outside schedules were all
reasons for students not being able to complete the photos over the weekend. Cloudy, rainy or overcast days presented a problem due to the lighting because the students did not use a flash. Camera or film problems accounted for some students having to take their photos again. For example, one students had taken pictures, but realized, when he opened the camera, that the film had not been properly threaded in the camera, therefore none of his photos turned out. Several students played lacrosse and had weekend games or tournaments which did not allow them time to complete the photos over the weekend.

Following the selection and discussion about the photos on the contact sheet, the students were instructed to develop, dry, and mount one photo in the dark room on Wednesday and one on Thursday as was the usual flow of their photograph development in other assignments. Fridays were designated as presentation and discussion day, which again was in alignment with their typical procedures. The mounted photos were hung on the wall where each student discussed the meaning of his or her photographs (two photos for each student). Because of the limited time frame in which to get through approximately 20 pictures, discussions were brief (a visual overview of the process is provided as Appendix O). The process of viewing the photos and sharing in the discussion was meant to deepen the understanding of the groups’ collective experiences and allowed for the co-creation of knowledge within the group which is consistent with Paulo Freire’s empowerment education (1973). These photos represented their lives in small intimate ways. Individual journaling and group discussion about the pictures involved an adapted use of the acronym SHOWeD, which is discussed in further detail in the data analyses section. The group discussion centered on identifying the individual meaning in each photo and exploring similarities and differences in their experiences. Due to the time constraint, group discussions were not focused on identifying themes, but focused on the interpretation of the photos, the
relevance across students, and actions that could be strengthened or put in place to reduce stress and enhance coping.

Fridays were also used to develop the prompt for the next photo assignment. [There were three rounds of photo assignments, but in the third round, junior/senior prom fell on that Friday. After polling the students, I discovered that only one student (the freshman) would be in class. Therefore, we moved the discussion session to the following Tuesday (session 12).] The process for developing the prompt or photo assignment was repeated from the first photo assignment except with the discussion centering around “what students do to cope (week 2/session 7) and what the students identified as “moving on” (week 4/session 12), which was what they do to move forward or move past the stress. Students again were given the weekend to take photos that related to or expressed their coping. In sessions eleven through thirteen, participants developed their photos and navigated through the photo selection process and one-on-one discussion about the photo, ultimately selecting two photographs to print which best expressed coping for them. Group discussions of the selected pictures occurred with each round of photos.

The discussion for the final prompt for picture taking (session thirteen) focused on what students used or activities they performed to move forward past the stress. They termed this “moving on”. The students took pictures over the rest of that week and weekend and returned for sessions sixteen through twenty to develop the contact sheet, select, and journal about the pictures, and print the two pictures for group discussion. At the end of week five, the Friday discussion (session 19) included the final round of photographs related to “moving on”, the feedback session, and discussion about the community forum.

**Feedback session and community forum.** Throughout week five, the students and I planned the community forum. This happened in short segments between students’ work on their photos in the
dark room and mounting in the main classroom. Students chose the local community art show as the best venue for the exhibit. The yearly art show contains a special section dedicated to student work which is a popular spot for visitors to the art show. Because the art show was in less than two weeks, there was a lot of work that had to be finished to get ready, such as matting all of the photographs and mounting the narrative to each one. The feedback session occurred at the end of week five. The feedback session with the students (session nineteen) included questions related to the process of the photovoice project (Appendix P). Questions included: “What did you like best and least about the photo assignments?”, “What suggestions do you have for future projects like this?”, and “Did the process of photovoice help you to increase your knowledge of stressors and strategies for coping?”. The purpose of this session was to provide me with an evaluation of the photovoice process which can inform future research using this methodology and to ascertain whether the process assisted in increasing the knowledge of stress and coping in the students.

In week six, the students finished the final column of the K-W-L and wrote briefly about what they had learned about stress and coping through this process (sessions twenty-one through twenty-two). The final week of the project consisted of finishing any photo printing, mounting, matting of photos as well as the creation of tags for the art show. Students created the narratives to be attached to the photos at the art show and these were mounted on red cardstock paper. Students also reviewed transcripts for clarification and concurrence and completed consent forms for the use of the photos for research purposes (Appendix Q). An email was sent to the parent and faculty/staff listserv inviting them to view the photo exhibit at art show (Appendix R). At the last class, personalized notes were given to each student in the project thanking them for their insight and work on the project.

The project culminated with the photographs being displayed for parents and community
members at the community art show on May 16th, 2010. The photographs and the narratives hung as a collection in two rows on one wall in the student art tent from 11 AM until 5 PM. Because the art show was in a tent, clothes lines were attached to the corner poles of the tent. The matted black and white photographs with the red highlighted narratives attached on the bottom of the each photo were hung on the clothes line in two rows. The size of most of the matted photos was approximately 11 x 14. They were secured with clothes pins and grouped according to the prompts (stressors, coping, and moving on).

Participants attending the community art show were asked to provide their thoughts, reactions, and/or reflections on the student photo exhibit. An explanation of the project (Appendix S) hung on the wall at several places within the photo exhibit itself. In addition, copies of the project description were available on a table near the photo exhibit. Brightly colored comment cards (Appendix T) and pencils were available on a table in front of the collection of photos. The comment card asked for the participant identification (parent, student, staff, community member etc), resident status, the grade(s) of any child(ren) attending the schools within the district, and comments on the photo exhibit. The feedback cards were used as a way to capture the reactions and reflections of community members to the students’ photographs. Visitors to the exhibit included parents, students, community members, and other non-community guests of the art show. Twenty-one comments were received from the community forum which are included in Appendix U.

**Focus Groups.** It was important to assess parents’ and school personnel’s perceptions of teen stress. This provided additional perspectives and insight into potential gaps in these perceptions.
Furthermore, the process stimulated a dialogue related to stress among parents, school personnel, and students. The use of a separate focus group with parents and a focus group with school personnel (teachers, staff,) helped to identify information which has been used to inform programs, processes, and interventions that will assist students in managing stress. The information from the focus groups was fed back to the students in an effort to establish whether the perceptions were accurate and whether the actions discussed were reasonable to the students. The questions in the focus group guide (Appendix V) were borrowed from an adaptation of the stress process model designed by Schulz, Parker, Israel, Allen, Decarlo, and Lockett (2002) for a focus group study. They used focus groups to explore stressors within the context in which they were experienced. Each of the questions related to one of the components of the model (perceived stressors, responses to stress, short and long term health consequences, and protective or buffering factors). They were asked in the order given previously to identify the perceptions of stressors, responses and ultimately what makes the stress better (mediating or moderating factors). The statements/questions that were adapted for the parents and faculty/staff focus group guide included: (1) Students at this high school experience stress when__. (2) How do you think students feel when that (stressor) happens? (3) What do the students do when they experience (that stressor)? (4) What are the long-term effects of feeling that way or responding in that way? and (5) What are the things that make it (the stressor) not so bad (meaning what are the things that can help students better respond to the stress that is inherent in their lives) (Schulz et al., 2002).

**Parent focus groups.** Four hundred-thirty letters (Appendix W) were sent to 10th-12th grade parents through the mail to their home address inviting them to participate in a 75-minute focus group to discuss stress in students at ABC High School. Freshman parents were not included as we wanted parents who could provide perspective over time and freshman students may have
stress that relates specifically only to the freshman year. Addresses were obtained from the High School. The parent focus group met on April 21st from 7:30-8:50 PM in the library at the high school. I provided snacks and drinks for those who attended. The recruitment letter contained my phone number and email address so that potential participants were able to ask questions and to register for the focus group. Reminder emails were sent to the parents on the day preceding the focus group.

I facilitated the digitally recorded focus group along with a colleague who recorded session notes. The session began with brief introductions, a discussion of the purpose of the focus group, and the completion of consent forms. The purpose of each of the focus groups was to explore the questions/statements adapted from the stress process model as outlined previously. The parent focus group included four mothers and one father. It convened for one hour and 50 minutes with very engaged and heart-felt discussion. The main concepts identified in the focus groups were fed back to the students to get their feedback and agreement with the information identified.

**Faculty/Staff focus group.** An email and letters (Appendix X) were sent to faculty and staff who work with 10-12th grade students to invite them to a 75-minute focus group. The letters to high school personnel were put in their school mailbox as well as sent via their district email by the school office staff. The school staff/faculty focus group met on April 21st from 3:15-4:10 PM. I provided snacks and drinks for those who attended. The recruitment letter contained my phone number and email address so that potential participants were able to ask questions and to register for the focus group. Reminder emails were sent to school personnel the morning of the focus group.

I facilitated the audio-taped focus group along with a colleague who recorded session notes. The session began with brief introductions, a discussion of the purpose of the focus group,
and the completion of consent forms. The purpose of each of the focus groups was to explore the questions/statements adapted from the stress process model as previously outlined. The teacher/staff focus group consisted of six participants and included teachers (n=4), a guidance counselor (n=1), and a teacher’s aide (n=1). It convened for 50 minutes. Focus group notes were read back to participants to allow for any clarification of information shared that day.

**Project Field Notes.** I took field notes to document my journey through the research process and as a way of maintaining accurate accounts and reflections. The research audit trail described by Lincoln and Guba (1985) and Rodgers and Cowles (1993) is a way of organizing field notes or journals in order to establish transferability, dependability, and credibility of the findings and interpretations of the research study. The four types of documentation that were suggested and used as I wrote my field notes included contextual, methodological, analytic, and personal reflection documentation. Contextual documentation was utilized to provide thick description of observations, events, settings, distractions, and anything else that related to the context of the data collection. The methodological documentation noted any changes or decisions I made about how the study was conducted. The analytic documentation provided a road map related to the process I used to analyze the data. Finally, the personal reflection documentation made notes of biases, honest reflections, and questions and the impact that they might have on the study. (Lincoln & Guba 1985; Rodgers & Cowles, 1993).

**Data Preparation and Data Analyses**

**Background questionnaire.** The information gathered from the brief background questionnaire was manually reviewed, reduced, and analyzed due to a small number of items (n=11) and participants (n=10). Frequencies and descriptives were developed which included
gender distribution, age range, grade range, ethnicity, percent of students taking advanced
placement exams, percent of students working in addition to school, and percent of students
participating in extra-curricular activities.

**KWL.** The information gathered from the KWL sheets was transcribed and manually
reviewed. I compared knowledge statements and questions that students had written about stress
and coping with the final column of what they stated they learned as a result of the project. Due to
the large amount of time spent on the development of the photographs and the limited time with
all students in the classroom each day, not as much time was dedicated to this part of the data
collection and, ultimately, was not as in depth as I would have hoped.

**Photovoice project.** The basis for data analysis in photovoice as a participatory needs
assessment method involves a three-step process as described by Wang and Burris (1997). The
first step was the participatory nature of the selection of the photographs. The participants
selected the photographs that best expressed their perceptions of stress, coping and “moving on”.
The second step then involved the participants in contextualizing the photographs or telling stories
about the meaning of the pictures. This occurred in both the audio-recorded group discussions and
one-on-one audio-recorded discussions between the students and me. Due to the chaotic nature of
the developing process and the short daily time periods in the classroom, I determined that I would
need to talk with students individually in order to get richer reflections about the pictures. For
example, some days there were only one or two students in the classroom with the rest of the
students floating between the developing room and the dark room, both of which were down the
hall. Students were everywhere and at every stage of the developing and printing process which
made organized discussion difficult. I approached students for individual discussion in the main
classroom when they were finished printing their contact sheet. I used the discussion questions
posed by Wallerstein and Bernstein (1988) to assist in framing the discussion questions. The questions are in the acronym SHOWeD:

What do you see in this picture?
What is really happening?
How does this relate to our lives?
Why does this problem, situation or strength exist?
What can we do about it?

The use of these questions allowed the students to identify and discuss meaning of the photos and steps that could be taken to deal with the issues. At times the SHOWeD questions seemed to act as a barrier limiting discussions, so I decided to use them as a framework, but focused the discussion on the meaning of the photo and the actions that could be taken to reduce stress and enhance coping.

The final step of the photo analysis, identifying the issues, themes or theories that emerged from the photographs is referred to codifying. The students wrote a title and an interpretation of the photos they selected onto a separate paper that were used as data. Due to time limitations within each class and with the overall project, we were not able to have in depth discussions related to theme development, but focused on the question of what we could do about the situations.

The discussion about steps that could be taken to deal with the issues following the picture taking illustrates the action-reflection cycle of action research. It is hoped that this iterative process will continue even after the project is completed. Any group or individual discussion was audio-recorded and transcribed. The transcriptions were presented back to the students as a form of member checking to substantiate the findings and validate the multiple perspectives of data that were shared (Lincoln & Guba, 1985). In addition, as I developed initial themes, I presented these to the students to get their feedback, concurrence, and assurance that I had reflected their
experience adequately. This process provided another means of checking the credibility (validation) of the data.

**Focus groups.** Field notes transcribed during each focus group session were read back to the group at the end of the focus group meeting to determine the accuracy of the note-taking and to allow anyone to clarify or modify anything they shared. This process of member checking has been used as a method for validation of the qualitative data generated from focus groups (Lincoln & Guba, 1985).

**Qualitative data analysis.** All one-on-one and group student discussions and focus group discussions were digitally recorded and transcribed. The transcriptions were printed, organized by session or focus group, and stored in a binder. Thematic analysis was conducted inductively using techniques informed by grounded theory. Grounded theory methods use a systematic process to analyze qualitative data and subsequently build categories and theories which are “grounded” in and constructed from the data rather than having the data “fit” into a theoretical model as in traditional research paradigms (Glaser & Strauss, 1967). Initial inductive coding of segments or “chunks” of the transcripts was performed staying close to the data and using gerunds to begin the coding process (Charmaz, 2006). Examples of initial codes developed from the transcripts of the discussion related to stressors with the students included “being under time limits”, “running out of time”, “trying to do everything”, and “having so much to do”. As I proceeded through the data, the analysis techniques included asking questions and making comparisons. Corbin & Strauss (2008) propose that “asking questions and thinking about the range of possible answers helps us to take the role of the other so that we can better understand the problem from the participant’s perspective” (Corbin & Strauss, 2008, p. 70). Useful types of questions for analyses begin with who, what, where, how, and with what consequences and often include reference to time such as
frequency, rate, or duration (Corbin & Strauss, 2008). In reference to the previous codes, example analysis questions to build the theme included “who was creating time limits?”, “what contributed to running out of time?”, “what are the things that contributed to having so much to do?”, “what were the consequences?”. The codes for the segments of data were compared with subsequent data codes in what is referred to as constant comparative analysis (Glaser & Strauss, 1967) in which each incident is compared with the other incidents. I made comparisons between the different codes (identifying similarities and differences) and then grouped conceptually similar codes together into patterns or themes. Continuing with the previous example, I grouped the codes together under the theme of “time”. Then I used the questions to identify and understand the various properties [characteristics that define and describe the theme (Corbin & Strauss, 2008)] and dimensions [the range of variation of a theme (Corbin & Strauss, 2008)] of the theme. Once the themes were identified, I began writing memos related to the codes within each theme to explore the connections. Memos are “running logs of analytic thinking” (Corbin & Strauss, 2008, p. 108). Charmaz (2006) states that “memos give you a space for and place for making comparisons between data and data, data and codes, codes of data and other codes, codes and categories, and category and concept and for articulating conjectures about these comparisons” (Charmaz, 2006, p. 72). The memos assisted with outlining the relationships between codes and categories and provided a bridge to drafts of the writing process. The themes and memos were then organized to answer the research questions.

**Establishing Trustworthiness**

Lincoln and Guba (1985) proposed four criteria to determine the trustworthiness of a study in a natural setting which mirror the terms used in a quantitative research study. Trustworthiness is the
process and condition that the research study had undergone so that the findings are worth “taking account of” (p. 290). Conventional research paradigms use the terms external validity, internal validity, reliability, and objectivity. In a naturalistic paradigm, the terms are referred to as transferability, credibility, dependability, and confirmability. To establish credibility (internal validity), Lincoln and Guba (1985) suggest prolonged engagement in the field and triangulation of data sources. In my research, participants presented what Lincoln and Guba (1985) refer to as “multiple constructed realities” (p. 295), that is, each individual’s reality is constructed in his or her mind, and demonstrating credibility is to present these multiple realities adequately. Triangulation of the data occurred through the observation and analysis of the multiple realities of the students’ perspective, the parent perspective and the school faculty/staff perspective. In addition, member checks (Lincoln & Guba, 1985) in which the participants reviewed transcripts for accurate meaning occurred throughout the process. Thick description of the process and a wide range of information from differing participants provided the method of transferability of the findings to similar contexts. Although the results may not be transferable to all teens at all schools, the process by which the research was conducted is transferable.

Dependability was documented through the use of auditing the research process (Lincoln & Guba, 1985; Rodgers & Cowles, 1993). The audit trail process includes four different documentation notes which outline the process by which the qualitative study was carried out. The four types of documentation include contextual notes, methodological notes, analytical notes, and reflexive notes. This was done throughout my field journal notes. I documented observations about the context of the school and the students. An example of a contextual note includes the description of the various classrooms used by the students and the flow of the students through these classrooms. Methodological notes documented any adaptations to how the study was
initially intended to be conducted. For example, the group discussion for the photographs was to occur on Fridays, but had to be changed to accommodate activities that occurred on Fridays at the school, such as Prom, in which the upper-class students would not be attending classes in the afternoon. Journal notes were kept to describe the process that I used to analyze the data. I kept notes describing how I created the codes and then how the codes were elevated into categories and themes. Finally, I used reflexive notes to capture my personal thoughts and reactions (Lincoln & Guba, 1985; Rodgers & Cowles, 1993). Because I was part of the data collection system through the facilitation of group and individual discussions, I kept, as part of my reflexive journal, notes related to the rationale for making certain decisions as well as any personal biases related to the study. It was not that I tried to maintain neutrality, but more that I was self-aware of certain biases related to the study. “We don’t separate who we are as persons from the research and analysis that we do. Therefore, we must be self-reflective about how we influence the research process and, in turn, how it influences us” (Corbin, 2009, p. 40). I was able to use techniques that helped me to step back and view the situation through the students’ lens and confirm that what I was portraying in my research was an accurate reflection of their experiences. This audit trail process in which I kept the reflexive journal as well as other notes related to the context, the methods, and the analysis led to the confirmability of the research results (Lincoln & Guba, 1985; Rodgers & Cowles, 1993). Additionally, because qualitative analysis should be fluid, flexible, and developed by insight and experience gained through interaction with the data and the participants (Corbin, 2009, p. 41), multiple raters were not used to code and analyze the transcripts. Morse (1994) suggests that the primary researcher gains experiential knowledge from being engaged in the research setting and process which enhances his or her analytical capability and an external researcher could not be expected to accurately analyze the data with the same insight.
Data Dissemination

Community forum. All decisions about where and how to display the photos were made through group discussion with myself, the teacher and the students. The advantages and disadvantages of various venues had to be weighed because the time frame between the end of the project, the seniors’ last day of school (which was 1 week earlier than the other students), and exams was only two weeks. The decision was made to exhibit the photos at the one-day community art show which is a popular event attracting both residents and non-residents. The photographs were displayed at the community art show May 16, 2010 in a specific tent containing student art. The art show began at 11:00 A.M. and ended at 5:00 P.M. The black and white photographs hung as a collection on one wall of the tent, further identified by red matting around the narrative for each photo. One week later, the photos were also displayed in the atrium of the high school near the cafeteria and the auditorium where year-end events, such as the academic awards banquet, senior dinner, senior brunch, and the advanced placement art presentation occurred. The photos hung on two portable photo boards, each of which held approximately 25 photos, and were categorized as stressors and coping/moving on.

Decisions about who to invite were made by the students with my input. Due to the short time frame within which to organize the events prior to the last day for seniors and the end of school, email invitations to view the student work were sent to the parent and faculty/staff/administration listservs. The students decided not to formally invite friends, but rather to use word of mouth invitations through their social networks. Once the community forums were completed, work began on an executive summary of the project. The school district, the district wellness committee and the school board received the executive summary which included a brief overview of the research process and recommendations for action.
Subsequent data dissemination. Future data dissemination regarding this research project is planned through manuscript publication and presentations at national conferences within the health education profession. The students in the class and Ms. Smith will be given an opportunity as co-authors and co-presenters in future manuscripts and presentations.
Chapter 4

Results

To answer the research questions posed for this study, I conducted thematic analysis of the data using grounded theory techniques. Transcripts of the photovoice discussion sessions with students, focus groups with parents and faculty/staff, and journal field notes were used to conduct the analysis. Participant descriptive data were manually summarized using the background questionnaires completed by the students. The results of each of the research questions are presented.

Participant Characteristics

The small group of ten students was interestingly heterogeneous and provided variations in perspectives. The group consisted of seven females and three males. One of the females was an exchange student from Taiwan and two students were African-American (one male and one female) with the remaining students being Caucasian. The grade distribution of the group included students from ninth through twelfth grade with an age range from 15-18 years. Six of the ten (60%) students have taken or were taking advanced placement courses, with the total number taken ranging from one to four and the maximum number taken at one time being three. Six of the ten (60%) students also worked in addition to going to school with some working varied hours from week to week and others working 12-20 regular hours per week. Eight of the ten students (80%) participated in either a recreational or varsity sport such as dance, recreational basketball, varsity track, tennis, and lacrosse. Students self-rated their personality. Four rated themselves as average, four rated themselves as outgoing, and two rated themselves as very outgoing. This heterogeneous group helped to capture commonalities as well differences in experiences across gender, age/year group, and ethnicity. Because the high school is a public high school, all students
were members of the community.

**Research Question 1: What are the Perceived Stressors of the ABC High School Students?**

When I first asked the students to describe or define stress, I received the typical student response: silence. I rephrased the question and asked them to tell me how they know when they were under stress and what stress felt like to them. They described stress in terms such as “really moody and cranky”, “on edge”, “pressure”, “a lot going on in my head”, “trouble falling asleep”, and “thinking more than normal”. Through the photographs generated and both individual and group discussions with the students, four overarching themes for stressors were identified to include *sense of belonging and acceptance, time, expectations of school and success,* and *substance abuse.*

**Sense of belonging and acceptance.** The first theme identified as a result of the photo discussions was labeled as *sense of belonging and acceptance.* The sense of belonging or acceptance ranged from fitting in socially and academically within the peer group and the social norms, being accepted and valued for being different, fitting in and having a sense of belonging within the family, community as a whole, and fitting in financially. Not only did the students feel that is was stressful to constantly try to fit in with their peer groups, they also found the process of conforming to be stressful as well (Figure 1).

One student, Pat, described it as a double edged sword in which he felt stressed when he was not fitting in, but also felt stressed during the process of constantly conforming and trying to live up to
the social norms of the peer group. He used his photographs to depict this concept as a metaphor. The flower in figure 1 looks like all the others in the pot representing conformity, whereas, the flower in figure 2 is the only one in the pot alive, so it looks very different from the others, representing standing out or being segregated from others because you are different. The students noted that standing out (Figures 2 and 3) created stress because of the way others perceived you as being different, whether it was the way you dressed or wore your hair or standing out by something you did. “Like if you stand out, people are like ‘he’s weird don’t go near him’ or something like that. Most people worry about what everyone else is doing. They don’t want to stand out”. Standing out could ultimately lead to gossip (Figure 4) and rumors which are easily started and spread in this small community.

People are really mean if you don’t fit in. And they’re really two-faced. They will say anything and they are not meaning it to be mean, but they don’t even realize that it’s mean. They don’t even get what they’re doing wrong. Rumors and gossip are stressful. Like everyone knows everything about you here because it’s so small and it’s really annoying.
Fitting in extends beyond that of just fitting socially. It extends to fitting in academically. The social norm is to excel in academics and take a more challenging schedule. Average students don’t have the same academic status as students who participate in the AP and honors classes. Students are sometimes derogatorily asked why they are not taking AP or honors courses. Class rank and grade point average (GPA) are competitive. For example, a student had a GPA of 3.9, took four AP courses, and took some honors courses and disappointingly (by his admission) had a class rank of 49. Another student stated “Everyone is like smarter than you. I feel that all the time. It’s stressful when you are not at the same level.”

Evette expressed the sentiment that she knows she is different and she doesn’t want to conform and be like others, but she would like to be valued and accepted for her differences. “Like I don’t mind standing out. I just don’t look like everybody else. I don’t wear Abercrombie. I just like don’t want to get made fun of for looking different.” She wears clothes that reflect her personality rather than clothes that fit into the norm. Her haircut is very different than most girls her age as well (Figure 5). These were the subjects of her photos related to stressors. Having different hair and clothes was not the source of her stress, but they brought on judgments and condescending looks from others which ultimately was the source of the stress. Her experience was confirmed by
It doesn’t stress me out to be different. It stresses me out when people alienate me for being different. These are pictures of my shoes (Figure 6). It’s strange being so different in such a main stream school. It can get stressful sometimes.

Bjorn also photographed his perception of the stress of the others’ judgment. He expressed this idea in a photograph entitled “judging without knowing” (Figure 7).

The theme of fitting in extended to a sense of belonging within the family and the community. Students expressed a struggle at times with fitting in at home within their own families. They attributed this to differing personalities and lifestyles. This can be especially true
for teens who live between parent households or simply with teens who feel like they want to be more independent or express their individuality or uniqueness which may not fit into the family parenting style or norms. One student expressed that the chemistry of his family made him feel like he didn’t want to be there and he didn’t see himself like them. “Home life can be really stressful with all the drama that takes place. I mean people with bad chemistry. If they all are acting crazy, then they are going to drive you crazy.”

This community is very generational meaning that people grow up here and then remain or return here to raise their families. They have siblings, parents, and grandparents living within the community. Some families have been residents for over 50 years. This long time residency status often creates an attitude of insider/outsider for others living in the community. Along with long time residency comes a self-appointed ownership or superiority in the community. This positionality can make transition into the community and belongingness difficult for those who have not been in the community for generations or for students who did not grow up here. Karen addressed this with a picture of a street sign in the community. She said it made her think of the Frank Sinatra song “Our Town” (Figure 8) and how she couldn’t wait to get out of this place.
This adult attitude (long time community resident equals ownership and superiority in the community) can be taken on by the children in those families who then wear this as a badge of superiority in peer relationships in which other students feel like they are being judged or looked down upon because they do not come from generational community families. Students who don’t have the same community status or financial status at times have to fight against the barriers to belonging and of having equal status in school before being known first (Figure 9). They fight against the barriers placed by those within the community who think they have more rights or better opinions because of their generational status. This community represents a microcosm of United States society and the general norms. Bjorn pointed out that society in general has made things the way they are. He used the photographs to depict his feeling about how societal norms create pressure (figure 10).

He also conveyed the feeling that everyone wants you to conform and be the same without respect or value for differences. Everyone ranged from peers to parents to school/teachers to society in general. Students are easily assigned labels and put into silos or boxes. Bjorn described the feeling of wanting to break out of the box and needing space to be able to grow and make decisions without the hovering from adults.

Financial status within this community was another factor contributing the stress of belonging and fitting in. Students expressed the stress related to financial status created by the insensitivity of other students to the costs of various things such as spirit wear related to participation on sports.

Figure 10: “Society is what it is and there is nothing you can do to completely change it. All you can do is be you and let it all come into place. Just promise me one thing…try and make life bearable.”
teams, limos related to special events such as prom, and vacations or travel:

I think that it’s money and also like some people on sports teams and stuff they will get spirit wear and stuff and they’ll be like oh it’s no big deal. But they have a lot of money, but there’s like a couple of people who don’t have as much and so it’s like; that is stressful ‘cause you are not at the same level and you can’t do the same things and they are always talking about what they did.

That’s how it was for prom. Like the group I am going with we kind of assumed we were going to get a limo and it was like fifty-four dollars per person and I had to pay for my own and I was like oh my god everything is going to add up, but if I want to go with my friends I really have no choice.

**Time.** Time was an overarching theme that resonated with all the students. Reagan expressed the theme of time with the picture of a clock (Figure 11).

Students discussed how they are always under time pressure with very busy schedules. Stress is created for them when they don’t have time to do the things they might actually want to spend more time doing and when they are under time limits for homework, projects, and tests. One student commented that “You’ve got all these things that, you know, you have a specific time to do them in and those aren’t the things that you want to do in that time period, so it stresses you out.”
It seems as if all students have this same stress of time. They are juggling very hectic lives with school work, jobs, and extracurricular activities like sports, dance, and music. Evette stated that she had to practice playing the piano since she was three years old and it became a huge stressor to her. She was forced to adhere to a strict practice schedule of at least one hour every day, which created more time pressures as she grew older and had more demands from homework and a part-time job. Students reported having the feeling that they are constantly racing the clock. One student shared that she didn’t think about time when she was having fun. “When you are stressed you think about time.” Another student stated “I don’t have time for anything. Like fun or even like other educational things. I want to be able to experience other things besides school while being in high school.” Students overall felt that they had poor time management skills and they could benefit from better use of their time. Time pressures and lack of good time management skills became very apparent when students enrolled in advanced placement (AP) courses at the high school. These courses are time intensive and very demanding academically. The courses require a large amount of self-directed learning and homework outside of the classroom. Teachers have rigorous standards and high expectations of the students which create stress and pressure to find time to keep up. This pressure builds exponentially with increasing number of AP courses taken. Students can take up to five or six AP classes during one school year. One student commented “I can’t even imagine how people take a bunch of AP’s. I don’t know how they do it. Like I was going to take AP bio too, but I ended up not taking it.”

**Expectations of school and success.** Students felt pressure to live up to many expectations. These expectations ranged from pressure to uphold and maintain the high academic excellence of the school and academic expectations from parents, teachers and self to expectations about success (scores on college entrance tests, scholarships, entrance into college) and body image. The
academics at the high school are rigorous and students reported that it was stressful. The high school has ranked nationally as one of the top 100 public schools in the country and the students are well aware of it. The covers of the magazines carrying the rankings are hanging in the entrance to the school. Teachers discuss school ranking in classes. One student stated “This is the best school in like the world. I guess that’s kind of like pressure. They try to keep up with the standards and then they raise the bar higher. We have to live up to that”. In addition students are challenged with the expectations of keeping up with the rigorous curriculum and pressure from parents and teachers to take more challenging courses such the advanced placement courses. Students cite pressure to improve their chances of getting into a school of their choice as one reason they take AP classes. Additionally, they stated that taking AP courses raises the level of their class schedule, accelerates them, makes them more prepared for college, and provides a challenge. Parents also exert pressure on students to excel in courses and on the college entrance exams so that the students can get academic college scholarships. Karen shared her experience in a group discussion:

For me it was like I’m going to college next year and my parents, especially these last couple of years, they are like wanting me to get scholarship money and it’s like so much pressure. ‘Cause I know that if I don’t then it’s just more money that I have to spend you know. So that’s really stressful to try to keep up my grades and the SAT and stuff. Students overall felt pressure from their parents about grades, but they also shared that the topic would not be so negative if parents would approach the topic as a discussion rather than a lecture. They felt unempowered by being told what to do, rather than receiving advice from parents. Parents also held expectations about doing things right and being organized (bedrooms and notebooks). Students had an overall view of organization as being a helpful means to
accomplishing your goals, but some students expressed the idea that organization for one person could be different for another. For example, Fo said this about her bedroom “even though it’s unorganized (from my mom’s viewpoint) I still know where I put stuff even if it’s not like in an organized area. Like it’s not all organized. I’ll say like, oh, I know where I put that.” Fo went on to describe that disorganization tends to build over time until a time when you are forced to get organized. The stress comes in when you reach that point.

A final code in the theme of expectations related to weight and body image. Both males and females talked about the pressure to have the right body shape or body type. Girls have pressure to be thin, the right weight, and look good in clothes, whereas guys had pressure to have a “six-pack”, be buff, and work out. Although, an interesting paradox was found to exist. Healthy eating wasn’t seen as a social norm. While the expectation to be thin was in place, the food choices for lunch and eating out were fast food establishments and did not include healthy options such as preparing lunch at home or getting a salad. There appeared to be some status in being able to eat unhealthy while maintaining a lower body weight. Fo described food as being a stressor because she fears gaining too much weight, but food is also what she tends to use to cope (Figure 12). She says “ice cream always makes me happy”.

This is a paradox in itself, but in addition, she related that her friends have expectations of being thin and maintaining a great figure, but also have expectations of eating out every day at lunch. Upper level students can arrange their schedule to have what is called a “double lunch”. A double
lunch gives the students ninety minutes for lunch and they can leave the school campus, so students tend to go eat at the many fast food establishments near the school.

**Substance use.** The theme of substance use as being a stressor was an unexpected and interesting emergence. The students described substance use both by friends and parents or family members as being stressful. Duse photographed a prescription bottle (Figure 13) to represent substance use in general and another student photographed a wine bottle (Figure 14) to represent that her parents drinking stressed her out.

![Figure 13: “Two Tablets daily”. Society has a problem with substances: nicotine, alcohol, prescription drugs, illicit drugs, food products, sugar, etc. Addictive, unnecessary chemicals that we use as Americans put into our bodies everyday distract us and demand us to use them, in many cases in excess. Watching a family member or friend succumb to substance is stressful at best.](image1)

![Figure 14: “My parents’ drinking is a huge stressor in my life. Feeling like I have to worry about them my parents is an unnecessary issue that is sometimes hard to deal with”](image2)

The prescription bottle has to do with the way society overindulges in prescription drugs. We just pump ourselves full of substance. The reason it is personal for me is like a lot of people I know have substance problems and that can stress them and everybody around them.
Duse described a feeling of being overwhelmed by others’ substance use that resonated with the other students.

You know you should be able to do something about it, but you can’t. If they don’t want to change they won’t and you feel personally responsible for them and when something happens you don’t know what to do.

The student who photographed the wine bottle did not want to talk about the meaning of the photograph in the group, but she was willing to discuss the photo with me. She was embarrassed when her parents would show up drunk to pick her up and she would come downstairs after studying in her room after dinner to find her parents drunk. These acts demonstrated lack of control over the drinking and lack of consideration for how their actions affect others. The misuse of alcohol by students was viewed as socially acceptable as a peer norm, but there were students who wanted to speak out about the stress of that behavior on friends and peers. Students explained that the alcohol consumption is either unseen by parents who don’t recognize the signs, don’t check on students coming home at night or are naïve to the line “I don’t drink” that their student feeds them; facilitated by parents who think they are teaching their students to be responsible drinkers by allowing drinking at their house or if you have a ride; and ignored by parents who don’t want to deal with the stress of having to deal with the issues with their teens. “My parents don’t listen. My parents are like I’d rather not know.” “Well there is either parents who help them out and say, yeah, you can drink at the house or if you have a ride. Like that is irresponsible beyond belief.”

**Research Question 2: What are the Perceived Stress-Related Coping Skills and Strategies of the ABC High School Students?**

When I asked students to describe coping, they provided phrases such as “a way to deal with
stress”, “being in control of things”, “doing things that makes you happy”, “dealing with the thing that is stressing you out”, “moving away from the situation”, and “meditation and breathing”. These were thought of as positive ways to cope with stress. They also described negative coping as “not talking about it”, “isolation”, “using alcohol or drugs”, and “trying to forget or denial”. Students suggested that alcohol and drugs tended to be used because they are stressed and it’s accessible. They use it to try to forget or as a type of denial. “Some people just do it for stress, but most of the times it makes you more stressed and usually causes you to be depressed.” Pat had a set of photos related to coping that described the delicate and sometimes hidden nature of stress and coping in teens (Figure 15).

The students differentiated between two stages of coping, the first being what you do while you are stressed and the second is what you do to move on past the stress or to get over it. The first phase was termed coping and the second was moving on. They described moving on from stress as “taking a new direction”, “a new beginning”, “making choices or being at an intersection of decision making”, and “starting fresh”. The themes identified as a result of the discussions related to the photographs of coping and moving on are presented.

**Reflections of self and situations.** The photographs of coping illustrated the theme of
reflection of self and the situation.

Bjorn brought up the point that he spends a lot of time in his head when he is stressed which was echoed by the other students. They discussed that they felt they spent a lot of time thinking things through on their own and working things out in their head first (Figure 16). They would use friends and then possibly parents as a later resort if they weren’t able to clarify things or work them out. They felt that by reflecting on a problem, you could get a better perspective and ask yourself the questions “Is it me?” and “How am I perceiving things?”. Fo said that by thinking things through and asking these questions you might be able to see things in a better light and re-evaluate, because a lot of stress is all in how you are perceiving something.

Figure 17: Reflections: “It’s not something you can really control or even force yourself not to think about. You stop, stare and analyze yourself and maybe even the things around you. You wonder if it’s you and do you need to change yourself and conform, or do you keep being who you are and let it take its toll.”

Figure 18: Thinking Girl: “I’m not sure about you, but I spend a lot of time in my head, making decisions, connections, and corrections. Both my unconscious and conscious minds are always at work determining how it all should be on my part. What should I do to get my voice heard? I’m determined that there is nothing wrong with that.”
This time of thinking and reflecting can lead to physical expressions of the coping as Reagan describes. “I bite my nails when I am thinking and trying to work things out, but my parents always say ‘stop biting your nails’, but this helps me cope” (Figure 19).

**Positive Relationships.** Students use a variety of relationships as a means of coping. Best friends are usually those who they go to first when they have a problem, before parents or other adults such as teachers. Susan discussed the fact that she coped by talking with her closest friend (Figure 20).

She differentiated between circles of friends. There are those friends who are in a wider circle and are included in outings and social events, but there are those who are very close friends whom you trust and have been there in difficult times. “Friends help me move on and forget the past. I think one of the keys to happiness and life is laughter. When I am with me friends, I am constantly laughing.” Relationships also extend to significant others who provide emotional support, safety and physical human contact (Figure 21).
Knowing people on a deeper level and having close intimate friends was thought to facilitate coping (Figure 22).

**Using nature and animals.** The theme of nature and animals was a common subject for photographs and discussion of coping. The students as a whole felt that pets provided a way to cope. Dogs and puppies were often photographed as well as rabbits. “Puppies are stress relief. Watching them play is relaxing” (Figure 23), said Logger. Animals also provide a source of unconditional love (Figure 24) and non-judgment. They listen when you talk and you never have to worry about them telling your secrets. They are always happy to see you and being with them makes you feel loved. Petting them provides a means of relaxation.
Evette provided this thought about her rabbit, Olive, who was the subject of her coping photo (Figure 25). “Animals don’t intentionally hurt you; they don’t think like that. Animals always make me feel better, because they never say anything to hurt you.” In addition, animals live in the here and now. They don’t worry about the past or the future. They just take each moment as it comes. Fo shared a photograph of her dog and shared this meaning about the photograph (Figure 26):

> When I am sad, stressed, and down in the dumps, animals always cheer me up. Their loving nature and sweetness make them so nice to be around. Roxy helps me cope with my stress because I know that she never judges me and it’s nice to know that there is something in this world that one can talk to and you know they can never tell your secrets and they’ll love you regardless.

On the same nature theme is the beauty and simplicity of nature itself. There is something calming and innocent about flowers, trees and water (Figure 27). They are so simple and pretty.
Nature is uncomplicated. Reagan said “I like to go on walks; they calm me down and help me cope.” Evette said “getting out into nature always makes me feel better. I go out in my canoe which makes me feel calm to be on the water.”

Nature was also used to describe the process of moving on past the stress. For the students nature represented new beginnings, a new start and new life (Figure 28). They saw that as the process you begin after you’ve been in the stress. You begin to make plans and move in a new or different direction.

The symbol that the tree represents is new life because even if the tree is old, there is always room for it to change. Not only does the tree change every season, but it is constantly changing every second of the day.

Finding an escape or distraction. Students discussed various distractions or escapes that they used for coping. For example, a simple use of television as a distraction to take your mind off of the stress. They used examples of driving (Figure 29) to get away, to have a change of scenery, to
go someplace else to have a new experience, and let their mind wander.

Reminiscing and doing things that took them back to their childhood days (Figure 30) were predominant subjects of photographs. This reminiscing took place alone and with friends. Jennifer shared this statement about her photographs of playground equipment and her friends:

Remembering what it was like to be a child and doing things that bring back memories is a way that helps me cope. Having fun and forgetting about my issues helps me a lot. Forgetting about problems is not always a good thing, but in my circumstance, it sometimes can help me because then I can look at the issue in a new light (Figures 31 & 32).

Making choices and moving on. Students described the final round of photographs as moving on past the stress. They described that while you are stressed you might do things such as think
about the situation, talk to friends, and look for distractions or escapes to take your mind off things, but that ultimately you have to find a way to move forward. Pat photographed his experience as a swinging fence door. “The door symbolizes an opening and moving on to something new. You don’t fully know what’s on the other side.” He said you ultimately have to move forward even if you are not sure where it might lead you. You have to make decisions with the information and resources you have at the moment. Bjorn photographed someone walking down the street (Figure 33) to capture this same thought as well as the fact that stressful situations, while unpleasant, provide an opportunity for growth and maturity. His photograph of the hallway at the school (Figure 34) was duplicated and matted to create the illusion of having pathways or choices that had to be made to move forward.

Figure 33: “Sometimes stress allows you to grow. All you have to do really do is take time out and think about life and move on to the rest of the wonders it has to bring you.”

Figure 34: “Your decisions are key in how you live your life. You walk down different pathways and make choices through stress both big and small. You never know what’s next, but that’s the advantage in life; it makes you into the person you are.”
Research Question 3: What are the support systems, assets, or strengths of the community, school, parents, and/or friends that are available to assist in coping with stress?

The assets and strengths of the community and school were identified through the parent focus group and the school faculty/staff focus group. The student discussion did not directly address this question due to time pressures, although some assets were identified through the discussion of the photos. The strengths identified by the parents revolved around the connection and closeness of the community, the engagement of the school administration, faculty and staff in the student life and the community, the extensive offering of extracurricular activities for the students to be involved in, and key staff at the high school who provide support and a safety net for students. The faculty/staff focus group identified the culture and excellent leadership of the school and the emotional capacity of the school faculty, staff and administration as assets which assist students in coping with stress. Interestingly, the students did not identify the same strengths as the parents or the faculty/staff; their dominant themes included friends and pets/nature as the things that helped them to cope. Therefore, it is important to point out that if the students did not identify them as assets (the school staff, faculty, extra-curriculars etc), then the assets do not exist in their reality and more could be done to enhance the perception and visibility of these resources.

Connection of the community to each other and the schools. This community has a strong sense of connection to the community members. The parents shared stories of the community rallying around two families whose mothers both had cancer. Nearly two hundred people attended a benefit for the two women, both of whom had children at the high school. During the school year one of the mothers died. One parent described her experience.

There was a funeral yesterday for a mother of senior. It was one of my daughter’s closest
friends. In talking about the strengths, there were hundreds of people there including the administration from the high school. An awful lot of the parents of those kids just pulled a reception together. We were talking about it Sunday morning and by Tuesday we were feeding, you know, hundreds of people. This community has a connection that I think is really amazing actually that they can rally around someone they don’t even know. People rallied around them contributing and donating. Just people calling and offering and I don’t want to lose sight of that when we talk about the stress. When things are difficult, this is a community that makes it a priority to be there for one another. I saw many physicians that were there, you know, that I’m sure had to miss clinical appointments with people to be there.

The point was made that even though there might be gossip and some other negative characteristics, the community comes together to rally around, protect, and support each other.

**Engagement of the school administration, faculty and staff in the community.** The faculty, staff and administration from the high school are also engaged in the life of the students and the community. They attend the students’ sporting events alone and with their own families. For example, the principal brings his children to the high school events such as the volleyball and football games and the strings and band concerts. Members of the faculty, staff, and administration attended the funeral of the mother of a senior to offer support. One parent expressed: “You know, all the key people were there at the funeral. The attendance and two office secretaries, the two principals, and you know, all of them.” The school staff was seen as attending to the emotional needs of the students in addition to academics. They were described as valuing and respecting the emotional needs of the students. A powerful image depicting this was described by parents and students near the end of the school year. As students filed past the open casket of their friend killed
at the end of the school year just before graduation, the principal and the vice principal held each student in a long embrace. The emotional outpouring of support for the students and the family was overwhelming.

**Extensive extracurricular activities.** Another strength of the school which was identified was the high school’s extensive extracurricular activities offered to students. Parents felt that these offered an alternate or additional way to get their child’s social needs met and to make connections with other students. The school offers sports teams, academic teams, journalism, band, orchestra, art, drama (fall play, spring musical, and Shakespeare), the science Olympiad, and language clubs to name a few. Because the school is small and there is such a wide range of varsity sports offered, athletes of all abilities have an opportunity to participate. The school teams dominate the league in sports competition.

**The culture, leadership, and key school personnel.** Parents identified several key positions and teachers as being an asset by providing a safety net for the students. The key positions included the nurse and the attendance office and the key teachers were those with an enhanced emotional capacity and desire to help the kids. The students can come express their feelings, feel listened to, and receive support on an informal basis. In addition, students needing to talk to these key teachers or roles are supported by the other teachers. One parent described her experience of being in the nurse role at the school:

A strength of this school and one that I think could be made even stronger is the nurse’s office. I would say definitely over half or two-thirds of what I see is mental health and not physical health. The nurse’s office is a safe place to go. Students feel very safe walking into the nurse’s office with no judgment, whereas kids feel a stigma of going to the guidance office. The attendance office is another thing that I think is really helpful.
The faculty/staff focus group identified the staff/faculty and administration who have the emotional capacity to recognize when kids are in trouble as a strength of the school. They described caring, supportive and trusted teachers who act as resources for the students. Building rapport with the students was identified as being very important to opening the door to communication. One teacher stated:

There are adults who are paying attention to kids in this building and when a child will come to you with tears in their eyes, that’s someone they trust. Once you build rapport with these kids and the door is open, they will come to you and let down. Sometimes that is all they need is to let down.

The teachers said there are people paying attention to the students’ emotional state as well as their academic status. They reported looking for signs of students being stressed and overwhelmed such as falling grades, putting their heads on their desk, weight loss, alienation or isolation, and absence. One teacher described the assistance that another key teacher provided to students.

She doesn’t coddle the kids when they come in. She gives them direction. She supports them and gives them her time. She sets high expectations. She doesn’t put up with a lot of crap, but she also tells them how to deal with what they’re feeling. You know, if you’re having trouble with your project then go talk to your teacher or let’s find a peer who can help you with it. She helps them figure out how to help themselves.

The teachers also identified the culture of the school as a strength.

I think when you say resources that the one resource we have in this building are the adults. The people and the compassion promote a culture of helping. So the leadership, I think, is excellent right now for us to help kids.

The idea that students need to informally be able to talk to the nurse, the attendance office, or
other key adults in the school is supported by the administration and other teachers. The parent who assisted in the nursing role at the high school offered these comments about the culture of the school:

I guess the other thing that is a positive culture is I have never ever had anything questioned. I mean, I might have a student for an hour and a half or two hours, you know, and if they are really upset about something or they’ve got a migraine or whatever. Never has anybody ever questioned, you know, if they are there with me, then they need to be there.

Research Question 4: What Interventions, Processes or Programs Could Be Put Into Place to Help Address the Needs of ABC School Students in Dealing with Stress?

Students Recommendations. Students’ recommendations for things that could address the stress and coping issues identified at the high school included establishing better relationships within and across grade levels to build peer to peer connections which could include transitioning to a four house system of student government and yearly retreats, teaching time management and other coping skills, transitioning to block scheduling, and having informal, non-judgmental places to go and people to talk to about alcohol, as well as more information about alcohol and talking to your kids for parents.

Establishing relationships and peer connections. Students recommended building better and more peer to peer connections with other students within their class and with students in other classes. They felt that more time for team building and relationship building would help to break down the barriers between students of different groups and potentially address the inaccurate prejudices and judgments that students inflict on others. They used examples of doing team
building games twice a year in which students from each of the four grades would be placed on teams and then compete against the other teams in smaller groups. The goal of these games would be to build teamwork among the members and force the students to get to know others within their grade and outside of their grade. Students felt that there would be less judging if they got to know others better. Students consistently mentioned that they would welcome the possibility of being with different people, but that it would not happen if left up to them. They used the example of the Camp Kern trip in the sixth grade in which the entire grade went on a two night trip to the YMCA camp. Students were randomly assigned cabin mates and were not allowed to change to be with their friends. The groups engaged in team building activities and individual skill building activities such as the high ropes course and wall climbing. Everyone had positive memories and expressed that the trip provided a framework to explore new relationships. They were grateful for the purposeful separation of friends and groups. Evette shared “no one gives us a chance to get to know others. Getting to learn about others who may be different is good”.

Another suggestion included changing the system of the student government to a “house” system (similar to the Harry Potter novels) in which students from each of the four grades are placed in the houses so that each house contains students from ninth through twelfth grade. Each house has representatives and earns points during the year based on the participation of all the students within the house. For example, students earn points for their house through attendance at plays, sporting events, academic achievements, honor roll, and community service projects. This again provides an opportunity to get to make connections and build camaraderie among students within and across year groups.

The third suggestion related to building relationships involved the mentoring of students through a big sister/big brother type program. Students explained that it would be nice to know
someone older when you come into the school as a freshman. They likened the experience to having a reading buddy in the elementary school. Again, there was a lot of discussion and sharing of positive and happy memories related to the reading buddy experience. This mentoring could provide an additional connection to the school and another person. Students could be provided with some type of incentive or privilege for their role as a mentor. Additionally, the house system could also facilitate this type of mentoring.

**Time management and coping skills.** Students identified the need for more time management skills and other coping skills such as meditation, relaxation, and breathing techniques that could potentially be briefly taught in homeroom. This would require training for teachers to facilitate the teaching and practice of the skills. Specific skills suggested by teachers included teaching students how to prioritize activities and how to approach the completion of large projects, which both tie into the theme of time management.

We tell them here’s your homework and here’s your project, but we don’t teach them how to handle ten different things. We don’t teach them how to do that. We just give it to them and expect them to be able to handle it. We have to teach our kids so that they can do it. I think we do our kids more of a service by teaching them those kinds of things than we do spending as much time on academics maybe.

Parents felt that students could benefit from Lifeskills booster sessions which incorporated more skills as students got older which address the increasing complexities and stresses of high school. These would ideally include communication skills, time management, and stress management. The parents also identified having a retreat at the beginning of each year or most definitely at the beginning of the junior year, which was identified as being stressful for both students and parents. The junior year retreat could include more skills related to organization, time
management, and specific coping strategies related to the increasing academic pressure from advanced placement courses and high stakes testing.

**Addressing alcohol more seriously.** Students viewed the relationship with alcohol to be out of control. They felt that younger students need closer monitoring, more attention, and more involvement by parents. They expressed that student drinking/getting drunk should be taken more seriously and be more prominently addressed. They cited that there is a tolerance of teen drunkenness by some parents, adults, and teens that they felt should be stopped. “Students should look out for one another and hold each other to a higher standard.” They also suggested teaching parents how to talk to their kids and how to recognize signs, have checks in place, such as requiring kids to check in when they get home, and having appropriate consequences. Having a place for teens to go to talk and not be judged was regarded as a possible plan to begin to make things better.

**Parent Recommendations.** Parent recommendations that were offered in addition to the themes identified included improving and expanding the role of the nurse and a resource for the college search and preparation process.

**Improve and expand the nursing role.** One of the parents in the focus group provided a valuable perspective from the view of both a parent and a substitute school nurse. She suggested that the school nurse role be stronger within the school. “The school nurse role is really not a nursing role. It’s not even required to be a nursing role.” The nurse’s office provides a safe place for students to go namely because other students don’t know if they’re going because of a headache, a stomachache, or to take medications: there’s no stigma. But it was perceived that half to two thirds of the visits by students are mental health related. The parents recommended that the nursing position should require some mental health training and be within a profession that has an
obligation and professional responsibility to assess students, follow through, follow up, make referrals, and intervene when necessary. In addition, they suggested providing a larger space and interacting with the health teacher and others to become a more visible resource. This role could also offer more education to students, parents, faculty, and staff on stress, anxiety, mental health, and suicide prevention. The parents perceived that kids needed more opportunities to be able to express their feelings both verbally and nonverbally throughout the curriculum and that this was a great school in which to do that because of the strength of the arts and music. The nursing role, the health teacher, and bringing in the Youth Services Bureau from the community together might be able to facilitate that through education and training with teachers.

**Improved resources for the college search and preparation process.** Parents shared that the junior year was very stressful for both students and parents. What made that year so stressful was the increase in the academic load of the advanced placement classes, but equally stressful was the college preparation and search process. Parents suggested a handbook that would guide the parents and students through the junior year college process. The book would contain dates for testing, recommendations for preparation for the PSAT, ACT and SAT testing, suggestions as to when to start college visits and how to work with your child in choosing a college, and information about the FAFSA and college scholarships. This booklet could be designed by a team of parents, guidance staff, and students who have already been through the process. They also suggested having a checklist of all the things that need to be completed by the first day of senior year included in the packet. It was mentioned that students could even have a summer assignment between sophomore and junior year to research several schools they would be interested in attending and researching the dates for the ACT and SAT exams. Another suggestion included an adult facilitated college search group for parents and students starting the second semester of
junior year. The group could offer sessions about completing applications and writing essays or be a group where parents/students come to ask questions and have resources. A resource could be mentoring from previous students who may attend college locally or engaging the community Youth Services Bureau to act as a resource, facilitator, or assistant in programs or processes.

**Teacher Recommendations.** Teachers in the focus group identified the need for teachers within the school to build relationships with students and suggested specific ways in which both teachers and parents could be empowered to act as a resource for high school students.

**Teachers building trust, relationships and rapport with students.** The teachers stressed trust and relationship building with students so that the students would feel comfortable enough to approach and confide in teachers. Teachers can challenge students to stretch themselves academically and intellectually and can encourage students not to give up because the classes or curriculum is hard, but they also need to be able to nurture and be open to building relationships. “If you want students to do well for you then develop relationships with them.” Building relationships and trust fosters communication. They suggested that when the district is looking to make new hiring decisions, they should look at teachers who have the emotional capacity to connect with kids, not just teach them.

I think you have to, I mean, you have to develop emotional capacity. That’s what we’re talking about. I think when we make staffing decisions we have to make some of those in those regards. Like does this person connect with kids? Is this person adding to the capacity or not? How much is this person going to add to the capacity?

They also referred to making good decisions as a result of knowing and caring about students regarding scheduling and testing. They suggested separating the due dates of the primary research paper and the Ohio Graduation Test (OGT) which are currently one week apart.
So when you put the primary research paper due the week before OGT, we have to, so there are organizational aspects we have to look at in order to try to make the year run a little bit better. That could diminish the tangible stressors.

**Empowering teachers and parents as a resource.** Teachers identified that they needed to teach kids how to work through the process of getting projects done and be an available resource for students. They identified that teachers need to be more willing to be interested in the emotional health of teens and allowing teens to be kids rather than just the academic accomplishments of students. The attitude that students should come in ready to achieve at all costs was criticized.

The emotional capacity has to do with selfish versus unselfish. I think that’s a lot of it. We’ve got so many selfish, self-centered people that they don’t want to give. They want to just do academics and they don’t want to worry about the emotional. They expect teenagers to be adults.

They also felt that parents needed help to increase their emotional capacity. “The high risk kids tend to come from families where parents lack emotional capacity, but may be financially well off.” The teachers are ultimately benefited as well if parents are empowered to be there for their kids. In addition, having teachers who can offer both of these dimensions (good teachers and high emotional capacity) and parents with enhanced emotional capacity enhances the effectiveness of the school.

**Research Question 5: Does photovoice, as a needs assessment method, serve as an effective vehicle for the exploration, expression and dialogue around perceptions of stress for ABC High School students?**

The students had more difficulty taking the pictures than they thought they would. They were
used to taking photographs from their time in the basic photography and advanced photography class, but they always had been given the subject of the photo assignments, such as lines or body parts. They felt they didn’t have to put as much thought into creating an image in that way. For example, the subject might be bridges, so they knew what they were photographing and didn’t have to come up with the idea for the image of the photograph; they just had to go out and find a bridge to photograph. They described their creativity being bound as well as a sense of struggling with trying to create an image in a unique or creative way. They had a difficult time thinking about how to conceptualize the stress in a photograph. The process of this photography assignment had to occur in 3 steps which required higher level thinking skills: first, they had to think about what creates stress for them and then secondly, conceptualize that, visualizing a way to take either a literal or metaphoric photograph. Finally, they had to then go and find the right place with the right light to capture it. Evette described how she felt after completing the first round of photographs:

I think for me I knew what stresses me out. I just didn’t know how to put it, like school stresses me out, but how do I put that. Like I can take pictures of books, but that’s what everybody else would do. You know what I mean? I didn’t know how to make it unique.

Karen echoed a similar sentiment:

I don’t know. I was trying to over think it. I was trying to think how I could, you know, do it creatively and not just take the obvious picture. I don’t know. You know, trying to make it a little more abstract. I feel like I kind of wasted my roll with, I don’t know, I just didn’t have enough ideas.

Bjorn described that he would see something and “I’ll take a picture of it and I just forget about it, about what created the thought or idea for it.” So by the time he would see the photograph on the contact sheet, he forgot what he was thinking when he took the picture. As a result, it was
suggested that they take notes or keep a journal when they do this type of photography so they can label the photos and write a little about their thought process as they capture the image.

As they moved on through the next two rounds of photos they stated that they were better able to generate the ideas for the photos, although they struggled with the time element. They were scheduled to take pictures over the weekend and then begin developing the following week, but it didn’t always work out that way.

It can be hard, you know, to collect your thoughts and what you want to take pictures of when you have a deadline and you’re going out to take them today, and I’m not seeing anything that I want to take pictures of, but I’ve got to take them today.

Sometimes the pictures didn’t come out as they had planned and because these are not digital cameras, the students could not see the photographs until they developed them. If the photos didn’t turn out (e.g. film was not rolled correctly in the camera, the film was exposed ruining the photographs, the quality of the photograph was poor, the lighting was bad because it was overcast or raining), then the students would have to start from scratch. This process was somewhat chaotic and frustrating. Duse related that he would have liked to have more time for discussions, but because the process didn’t move in a straight line and students were in all different places with their photographs, there wasn’t time.

One student described the upside to this process and the project as “it’s a good thing ‘cause I’ve actually learned to take a better picture and become one with my pictures.” Overall, students felt that they enjoyed the ability to create a photograph that had personal meaning and they enjoyed seeing the other students’ photos as well as the meaning behind them. Bjorn stated that he liked the project, “It was more focused on the art of the picture and the meaning of the picture than it was, like I know, rather than about the technical qualities, like contrast, and whether it was right or
wrong.” As the project progressed, the students liked the fact that they had gotten to choose the subject of their photograph and on reflection they felt that the process helped them with becoming more aware of stress and dealing with stress.

I had feelings triggered by this process. I’ve grown from changing from going to sleep as a way of coping to going to yoga which is doing something to make myself feel better.

I realized that I was stressing more than I probably should. I shouldn’t be stressing. I also learned how to deal with some stressful situations.

I think it’s (stress and coping) more of an unconscious understanding. You don’t really recognize it now, but it’s back there and it goes on in your head. This process helped to bring the unconscious to the conscious and to create an image of your feelings and thoughts.

Research Question 6: Does the process of photovoice, as a needs assessment method, help students to increase their understanding of their stressors and improve or increase strategies for coping?

The data used to answer this research question were the KWL sheets completed by the students. The K (what do you know about stress and coping) and the W (what do you want to know/questions you have) were completed prior to the photovoice process and any discussion. The
L (what did you learn) was completed at the end of the process. Tables 2, 3, 4 and 5 on the following pages summarize the students’ prior knowledge, questions, and what they learned about stress and coping and provide the results by sex and either stress or coping. Overall students had a general knowledge about stress and the things that caused stress, although, prior to the project, they had never identified the things that stressed them out as stressors. One student did have specific questions about stressors and wanting examples. The questions generated for both stress and coping related to wanting a better understanding of the psychology behind stress, how stress over time affects health (the impact of stress on health), and how to better cope and deal with stress. What the students learned as a result of the process appeared to be the awareness created about stress. They described that when they stopped to think about it, they realized it was there, but they had never took the time to become more aware of the situations and how they were reacting to them. Bjorn described stress as being in your subconscious, but when he had to take photos about what caused it, it brought those thoughts and feelings to his consciousness. Students reported that they learned that stress was a reaction to something happening, the way you perceive something, or expectations about performance or behavior and that by changing the perceptions, the reactions, or expectations you could change the course or impact of the stress and improve the ability to cope. They also realized that they still needed to learn more strategies for coping and saw an opportunity to provide more structured training at the school level.

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<thead>
<tr>
<th></th>
<th>Knowledge of Stressors</th>
<th>What Questions do you have?</th>
<th>What did you learn?</th>
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<tbody>
<tr>
<td>Stress</td>
<td>Stress can be caused by</td>
<td>What is the psychology</td>
<td>I learned how</td>
</tr>
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Table 2
*Results of KWL Related to Stress in the male high school students*
many different things

- Stress can lead to worse things.
- Stressors cause stress.
- Stress is something that affects your mental, social, and physical health.
- Stress can have a positive effect on you because it can help you to finish things.
- Stress in unavoidable.
- Stress affects you mentally, emotionally and physically.
- Stress puts you on edge.
- Stress makes you feel like shit. It ages you and unravels your DNA.
- Stressors can be anything and are unique for different people. Stress is my least favorite thing behind stress?

- Minor and major factors that cause stress?
- What is a stressor exactly and what are some?

Acknowledgement is first step.

- I learned that nearly all of the stress that our class endures is primarily brought on by expectations and society (and ultimately self) Induced factors that humans naturally are not accustomed to. If we lived more naturally and without the structure that society has built, we’d be much less stressed out. I also learned that most stress is only what you perceive it to be.

Table 3
Results of KWL Related to Stress in the female high school students

<table>
<thead>
<tr>
<th>Stress</th>
<th>Knowledge of Stressors</th>
<th>What Questions do you have?</th>
<th>What did you learn?</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don’t know much about it, but when you are worried</td>
<td>Can stress lead to other problems with physical or</td>
<td>Everybody has different stressors and from different</td>
<td></td>
</tr>
</tbody>
</table>
about something or don’t want to do the thing you have to do.

- Something annoying someone.
- Stress is some action caused by a stressor and its original function evolutionarily speaking was to keep us from being eaten. Today stress is a mechanism that usually occurs when we are worried about something we can’t control. Stress can cause medical problems such as ulcers and speeds up the process of aging. It weakens the immune system making people more likely to become ill.
- I know that stress can make everything harder.

psychological health?

- What are good ways to deal with stress?
- What is the effect of stress?
- I want to know how to cope with stress in a healthy way.
- Why do some things stress some people out and not others?

reasons and their reaction from stress.

- There are a lot of things that stress me to, but most of the time it’s just in my head.
- Different people in my class deal with things that stress them out differently.

Table 4

Results of KWL Related to Coping in the male high school students

<table>
<thead>
<tr>
<th>Coping</th>
<th>Knowledge of Coping</th>
<th>What Questions do you have?</th>
<th>What did you learn?</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know that coping can</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

99
be hard to do. Physically venting (sports, physical activity, eating) and emotional venting (telling, thinking it over) are ways to cope. I would like to learn how to better cope with my stress. I learned that I suck at coping with stress and that we should really educate people (in school perhaps) about coping with stress. Meditation maybe.

<table>
<thead>
<tr>
<th>Knowledge of Coping</th>
<th>What Questions do you have?</th>
<th>What did you learn?</th>
</tr>
</thead>
<tbody>
<tr>
<td>• In coping with stress, it is a specific way with dealing with a stressor to relieve the actual stress.</td>
<td>• Why is coping easier for some more so than others?</td>
<td>• I learned ways to cope with things that stress me out.</td>
</tr>
<tr>
<td></td>
<td>• What are the best ways to cope?</td>
<td>• I have different techniques to deal with my stress than</td>
</tr>
<tr>
<td></td>
<td>• How do you get rid of it pretty</td>
<td></td>
</tr>
</tbody>
</table>
• Friends can be a good support when you are trying to deal with stress.
• In order to cope with stress you need to be able to identify what is stressing you out.
• You have to face and deal with the stressors.
• It’s something you do to deal with things that stress you out.
• Stress is bad for your physical & mental health.
• There are good and bad ways to cope.

• How to cope with stress in a healthy way that works for me.
• I learned that there are many ways that I can cope in a healthy fashion.
• I learned to cope and the different ways of coping; positive and negative and how to use that in true life.
• I learned how to avoid my stressors.

Research Question 7: What are parents’ perceptions of their student's stressors, stress levels, and coping strategies? a) Do these perceptions align with the students' perceptions? b) Is there a gap that exists between parents’ and students' perceptions? c) If a gap exists, how can this gap be closed?

The parent focus group consisted of four Caucasian mothers and one father who arrived toward the end of the session. Two of the mothers worked outside of the home full-time, one mother worked outside of the home part-time, and one mother was not employed outside of the home.
They all had more than one child and at least one child currently at the high school. Their students attending the high school were both male and female. The focus group was conducted in the library at the high school on a Wednesday evening in May at 7:30. Snacks and drinks were provided. It lasted one hour and fifty minutes. The group was very talkative and very interested in the topic. They were very forthcoming with their insights. The themes from the discussion about stress and coping were summarized. Their perception of the main stressors for the students at the high school were fitting in and high expectations. Their perceptions of the coping strategies used included the theme of distractions.

**Fitting in.** Parents expressed that a major stress for kids at the high school was fitting in. “So in terms of high school stress, my older daughter has a hard time fitting in. When it comes to just a group of friends she struggles with that. I also hear from other girls who are her same age say the same thing.” Fitting in also meant not standing out and drawing too much attention in a way that would stimulate gossip or talk. *Fitting in* extended to the financial status of the family. Not being rich or well off makes it difficult here. Living in an apartment or a small home brings judgments from other students. This financial status difference creates another barrier for moving around into different groups. The women felt that with the relatively small class size there was less diversity and fewer groups in which to fit. Their perception was that the more unique students had a more difficult time finding a place to fit in. It was perceived to be difficult to move around between various groups and that because students are together in the same class with the same students from the fifth grade through senior year, they might be ready to explore new friends or new groups. The labeling and perceptions of who you are start when the students are young as well. “The perception of who you are starts in the fifth grade. You know when you are going from middle school you sometimes go with kids from other middle schools and then they filter in and
you can find a new or different group (people who didn’t already know you or with whom you had a past).” There is a sense of starting fresh or getting a chance to be something else when you go to a new high school in a bigger community, but in this community where everyone knows everything about everyone and gossip travels fast, your past always follows you potentially creating barriers in your future. One woman described how a boy was deemed a crybaby in kindergarten when he got his tonsils out and that was how he was perceived until after he graduated from high school. “All the kids judged him by something that happened to him when he was little.”

**Expectations.** The expectation and the pressure of the academics and to achieve in all areas was thought to be a big stressor for students in the high school. There are a lot of bright kids in this school. “You know, smart kids, maybe they are really brilliant in one area, but the stress and expectation on them to achieve in all the different areas is high.” For example, students might be talented in math and be in the double advanced math courses, but there are high expectations to be equally brilliant in the other subjects like English or history. It seemed to the parents that when students excel, then the bar is raised even higher and more pressure is applied to keep achieving more. Teachers’ expectations were perceived to put pressure on students and create stress. They shared that some of the teachers stress their kids out; they are stressed with the high stakes testing (SAT, ACT, PSAT, AP exams), the pressure to take advanced placement classes, and the volume of outside homework. Grades were also viewed as competition and one more area to create pressure within classes and among peers, which create the most stress on those kids who are not achieving at that higher level. Mothers’ articulated their thoughts about the academics and expectations in this way:

I think, on the academics, the other thing I hear consistently is that for the high school
academics is obviously a big priority and there’s a lot of recognition and pressure put on high achievement and so it seems to meet the needs of those people that learn easily because it challenged them and there’s a lot of reward for that. I perceive that we also have a very strong special services department so the kids that have the IEP’s get the support they need, you know, so they can do okay. Where I hear the most stress is the kids and not even the average, but the low end of average that don’t qualify for the IEP’s but are really struggling to keep up with the college prep pace that this school has to offer.

Students feel pressure to grow up and represent our community. It’s something maybe children shouldn’t have to worry about. I think it’s interesting. My kids would be able to articulate that they feel pressure to be constantly moving beyond.

Along with expectations for academics are the expectations and pressures to succeed. “All three of my kids would say they feel pressured. I don’t know necessarily if it’s from teachers, peers, parents or whatever. They would probably all agree that they feel pressure to grow up and succeed.” Success is somehow defined by what college you apply to and get accepted to, how well you do on the college application tests, and what type of scholarships you are offered. In addition the pressure and expectations begin in the junior year with the college search process. That process includes decision-making related to which colleges to apply for, testing requirements and dates, which test to take, should you take a prep course, how many times to take the tests, arranging for college visits, how to locate available scholarships, the college application process, the scholarship application process and preparing the FAFSA. This is an overwhelming process for an experienced adult let alone a teen who may be lacking in organizational and coping skills. “The stress around college is insane.”

Other expectations that create stress are those from peers, parents, and the school. On one hand the
students have peer expectations to act in a certain way to fit in and be cool and then another set of contradicting behavioral expectations from parents and school. They are constantly fighting the contradicting expectations with another layer of expectations created by the media.

The kids feel like their parents expect this and their peers expect the opposite. The two are not meeting. Then just saying the expectation is that I’m supposed to be perfect, I’m supposed to be good, I’m to do this and my friends expect me to be cool, have sex, drink, and be hot and athletic and smart. Across the board. The girls say I have to be hot, sexy, and skinny. The contradictions are insane. It’s enough to make you insane.

Using distractions to cope with stress. When I asked the parents what students do when they are stressed, they said things such as act out, hang out with their friends, listen to music, withdraw and isolate themselves, go to the computer, and drinking to numb themselves. Although they felt that some of these behaviors were typical of high school teens anywhere, they also thought that there was a different sort of pressure in this high school and this community. In addition to having different pressures, they also had more opportunity and access to alcohol with parents stocking home bars, older siblings, friends or adults willing to purchase alcohol for teens, and parents going out of town and leaving the high school students home unattended.

“I don’t know, like kids drink no matter what their background is, I think, although these kids have more money. Yeah, and more resources and access.” The parents identified avoidant type coping strategies that students used to deal with stress which, when combined with easier availability and access to alcohol, make alcohol use an easy road to take. Parents were realistic that in this community and high school, the pressures, stress, and expectations are not going to go away, but that students need better coping skills and options which include more active problem-solving strategies.
I was thinking that it is very stressful. I don’t think you can take that away. It’s just a very stressful thing. It has more to do with support and coping and, you know resources to kind of alleviate it some.

On reflection of the discussions with the students and parents about the high school students’ stressors and coping, there appear to be parallel themes of stressors and coping identified. Additionally, strong suggestions for action were made by both groups which could facilitate less stress (more peer connections) and improve coping (offering additional resources to build coping skills). There is a small gap identified in the perception of stressors for the teens. They identified peer and family substance use as a stressor, which was not mentioned as a stressor by the parents. Education for parents to increase awareness about how their behavior and the behavior of teen peers cause stress is warranted.

Research question 8: What are the faculty/staff perceptions of students' stressors, stress levels, and coping strategies? a) Do these perceptions align with the students' perceptions? b) Is there a gap that exists between faculty/administrators/staff perceptions and students' perceptions? c) If a gap exists, how can this gap be closed?

The faculty/staff focus group was attended by five faculty/staff members. The members of the group brought a variety of experiences and content areas. Those that attended included a guidance counselor, an art teacher, a math teacher (who also teaches AP courses), a teacher’s aide and an intervention specialist. This group was able to provide broad perspective of student at all ends of
the spectrum. The themes generated from the fifty-minute discussion about stress and coping in the high school students included the students’ ability to meet the expectations of both social and academic performance, parents being emotionally available to help students cope, and student coping. Suggestions and recommendations are presented in a separate research question.

Meeting the expectations of social and academic performance. Students are stressed through a variety of social and academic pressures. Students experience stress from things ranging from prom week to the end of quarter due dates for papers and tests to overall grades. They experience stress in new social situations they are encountered with as they mature through high school.

Stress can be created by a gap in perceptions of meeting expectations. Having higher expectations in all areas can create a number of potential gaps in which students can then have a compounding effect of stress. The stress is created by the student perceiving that he or she is not meeting the expectations of parents, teachers and friends.

Well, it’s the difference between performance and expectation. Okay, so you know, is your performance meeting your expectations and is it meeting your parents’ expectations and is it meeting your peer’s expectations. So there is a hole sort of, you know, a mine field of where all that can fall. Then what’s your ability to deal with the differential between the expectation and your performance. When you can’t resolve that difference then you’ve got stress.

Academic pressures appear to heighten in the spring. Spring tends to be a very stressful time at the high school both because there is a feeling of stress due to state testing, AP exams, and major papers being due on top of the social pressures associated with prom.
and other social events. Students get overwhelmed with academics and grades. “We are a grade society. It’s all about what their grade is going to be and the competition for grades.” The guidance counselor explained that last year ten students were in crisis in the spring due to stress and anxiety.

Well it’s interesting, last year, I wish I had the exact number of students who ended up hospitalized with depression or partially hospitalized, or developing school refusal. We probably had ten students last year during the spring. I think it’s coping with the end of the year and all about these high stress activities that people are talking about including social activities and moving on to the next year.

She felt the commonality among these students was that these students were at risk because they get caught in a cycle of negativity about school and life and additionally had poor coping skills. They got overwhelmed with the academics and performance on every level and started missing school, which then compounded the problems and the stress. They were then in a situation of needing a support system to help get them caught up and work through the issues. The problem escalated due to the fact that their parents did not know what to do or disagreed about what should be done. They were typically not single parent families or families who lacked resources, but they seemed to be emotionally unavailable to help their kids. From the viewpoint of the faculty and staff, the stress escalated in the students because the parents lacked the capacity to help their students cope.

**Parents being emotionally available to help students cope.** Parents are encouraged and expected to be the first teachers of children. They are both teachers and role models. During the teen years at the high school when the pressures and academics increase, parents need to be gatekeepers for the students to help them to learn balance. By doing this parents help students to
be good decision makers and natural problem solvers. The more engaged parents, meaning those who are emotionally available and not too busy climbing the corporate ladder, seeing patients, running a business or traveling overseas to help their kids with their problems, help kids cope by helping them to draw lines, say no, prioritize activities, and role model stress management.

The kids who don’t have parents who are engaged with them I would say have more stress. The kids who parents are parents and realize their students are kids, help them balance. They tell them when to draw the line. They are guiding the process and teaching. What they are doing is teaching them how to handle their stress, manage their time, and to figure out what they are going to have and if they want to do this, you have to do that. They are creating this ability to discern what should be done, you know, how to prioritize. If you have those skills, you give those skills to your kids. They need support at home, because they’re still kids.

**Student coping.** Teachers described student coping in terms such as withdraw, shut down, emotional, crying, act out, scream, play video games, stay up all night, and use alcohol to medicate themselves. They described avoidant coping strategies used by the students. Students were seen to just do other things rather than focus on an action-oriented solution to the problem—the opposite of what teachers thought they should be doing.

Kids don’t have that all figured out, okay. So what they do is that they take time to kind of deal with this rather than being action oriented. It’s like the reverse reaction of what they should do. They actually just need to put one foot in front of the other and walk their way out of a situation. But what happened is it paralyzes them in the moment and they find some activity and something else to do rather than take that step. Like playing a video
game or doing something that is not helping them move forward, but just creates more stress.

Preparation was a major key to coping with the academic pressures. Faculty described their role as one of providing challenge for each student at his or her level. They liked to stress preparation, stretching yourself academically, and not giving up because it is hard. Doing your best, whatever that is, is Okay. Teachers have to balance applying pressure and knowing when to pull back and be supportive.

You know, I’ve got the brightest kids and then I’ve got some kids who are in over their heads. I have to allow for a differential response. But at the end of the day, they have to have grown in their own ability. I think what every AP teacher tries to do is give an opportunity to those students to take themselves to the next intellectual level.

On reflection of the faculty/staff perceptions of stress and coping in the high school students, it appears that the perceptions of stress and stressors are parallel as well as some of the ways in which students cope. Both students and faculty/staff identified the social and academic stressors of the high school. The faculty identification of the parent emotional capacity adding to the problem of teens being able to cope aligned with stress that teens felt by having a parent or friend with substance use or abuse. When parents, family, or friends use substance, that creates stress for teens because that person (teen or parent) is not available to help the teen with problem solving in any capacity—but adding to the creation of problems. Otherwise, students did not identify the lack of parent involvement or ability to be there to help them. On the contrary, they felt that parents might be too involved and described some parents as hovering and not letting teens have enough space.
Summary

In summary, the photovoice project allowed the students to identify and express stressors and coping through their photographs. The photovoice process from photograph selection and individual and group discussions to the community forum allowed them to pose questions about stress and coping, understand the various ways in which their peers experience stress and coping, and to have a voice in creating realistic suggestions and recommendations that could assist other students at the high school and provide a more positive school environment. The students also gained knowledge and awareness of stress and coping by participating in the project. The focus groups allowed for the parents and faculty/staff to voice their perceptions of student stress and coping, to identify the strengths of the school that exist in making it better for the students, and to offer viable recommendations for improving student health and performance. Figure 35 summarizes the project activities conducted, the themes generated, and the recommendations for action provided. A video with the process and some of those photos has also been created to be used as a dissemination tool.
The next chapter, chapter five, provides a discussion of the findings, the photovoice process, and limitations of the research. It also provides recommendations for future research and implications for practice.
Chapter 5
Discussion

This participatory action research project using photovoice with high school advanced photography students and focus groups with parents and faculty/staff served as a needs assessment to explore and better understand the perceptions of stress/stressors and coping in students in an academically challenging, Midwestern, suburban high school. Students with unmanaged stress and poor coping skills have been shown to be at risk for substance use and other risky health behaviors. There has been a dearth of research in high-achieving high schools and understanding the unique contextual needs of each school facilitates the design of programs or interventions which address their specific health needs. This study also engaged students in being advocates for health and positive change in the school and community. This was the first step in engaging the students and the community in school health promotion efforts. A discussion of the salient themes identified, implications for practitioners, and recommendations for future research are presented.

Stressors of students

The photovoice project with students and the focus group with parents and faculty/staff identified four overarching themes of stressors in the high school students: a sense of belonging and acceptance (fitting in with peers and at home), time, expectations of school and success, and substance use. The themes identified in this research are consistent with the key sources of teen stress reported in the literature which include school, family & home life, time, fitting in and social disadvantage (Byrne, Davenport, & Mazanov; Chandra & Batada, 2004/2006; LaRue & Herrman, 2008; Lau, 2002; Mates & Allison, 1992). Fitting in within various circles and identities was identified as a major stressor. Interestingly, those who are seen as being popular or main
stream also have stress from continually maintaining the “in” status as represented by the idea that constantly conforming and maintaining that “in” status was as stressful as trying to fit in. Byrne et al. (2007) identified pressure to fit in, being hassled for not fitting in, being hassled about the way you look, being judged, and being satisfied with the way you look as sources of stress related to peer pressure. These items were included on a measurement instrument as a result of that research. Mates & Allison (1992) also identified the pressure to establish and maintain relationships as a stressor for high school students. Fitting in academically in a higher-achieving school and the students’ struggle with feeling smart enough or measuring up academically has not been identified in previous stress literature in school health. Most studies have occurred in lower socioeconomic areas in which other environmental stressors, such as safety, violence, drug dealing and other neighborhood stress, may be more prominent (Chandra & Batada, 2006) or they looked at the differences in coping between high-achieving and general education students (Suldo, Shaunessey, & Hardesty, 2008). Consistent with other literature, fitting in financially was seen to be a source of stress for those students who are middle class in the community (Byrne et al., 2007; LaRue & Herrman, 2008; Mates & Allison, 1992)

The stress of time and expectations for school and success have been identified in the literature as well (LaRue & Herrman, 2008; Lau, 2002; Mates & Allison, 1992; Pope & Simon, 2005). Students today are overwhelmed with taking rigorous courses, getting higher test scores, getting into the best colleges, and getting scholarships with the rising cost of a college education. The stress of the higher work load outside of school, higher expectations from teachers, and exams related to advanced placement (AP) courses was discussed by nearly all the students in this study. They also discussed the pressure that comes along with being a part of a nationally ranked school--the pressure to maintain that ranking which is related to taking AP courses and exams. Students
have to juggle these increased demands of school work, extracurricular activities, community service (for most), and home expectations which all compete for time and attention. Added to those demands are the time and attention needed to be given to preparing for and conducting the college search and the preparation of college applications which are added stressors during the junior and senior year of high school for both students and parents, particularly those who have had no prior experience with the process. The stress of high school students over the anticipation and preparation for college has been reported in previous literature (Broekemier & Hodge, 2008). Time management, effective communication, and coping technique training for students was suggested by students, parents and faculty/staff as a way to help the students better cope. This suggestion has been reported in previous literature as well (Byrne et al., 2007; Nash et al., 2005).

Students identified alcohol and other substance use by their peers and family members as a stressor. They identified feelings of helplessness and not being able to do anything about it, yet, at the same time feeling responsible if something bad happened as a result. A similar theme was reported in Chandra and Batada’s (2006) study in which the well-being of family members and friends was reported as a stressor. The teens in Chandra & Batada’s (2006) study included both friends’ problems and family members’ problems in the top five stressors as well as the top five stressors occurring most frequently. Students in this research study identified the overuse of both alcohol and prescription medication, namely medication for attention deficit disorder taken by students (not diagnosed with the disorder) by friends and family members as a stressor. For friends, they cited using these medications as a way to keep up with the demands of school. The pressures of school along with the access to both alcohol and over prescribed medication are what students saw as key components driving this misuse. Additionally, teens used this forum as a voice to speak out to other students and parents through their photos to create an awareness and demand
that more attention be paid to this issue and to set a higher standard of behavior. The parents and faculty/staff had similar perceptions of teen stressors except for the recognition of substance use as a stressor. I would have expected to find the substance use emerge as a theme for coping within the student photos. Alcohol use was discussed as a widely used coping method in the groups as well as in the literature, but within the student group the discussion centered around the alcohol use of others as a stressor. I had not expected to find substance use (of peers and parents/family members) as a stressor identified by the teens. The important information brought to light by the students was that parents needed to be more involved and more vigilant as well as the school treating the issue more seriously. This idea of more parental involvement in conjunction with the school is supported in the literature. Nash et al. (2005) identified school directed family involvement programs as part of a school-based alcohol and drug prevention program. This type of program asks parents to verbalize expectations to students which are not supportive of teen alcohol use or to promote ways to avoid substance use and assist in modifying family environments. Having the parents work in conjunction with schools in not condoning the use of alcohol is an important first step in addressing the issue.

**Coping in High School Students**

The themes identified through the student photovoice project for coping included *reflections of self and situations, using nature and animals, positive relationships, finding an escape or distraction and making choices to move on*. The parent focus group identified the major theme of using distractions to cope and needing better coping skills. The faculty/staff focus group identified the emotional capability and availability of both parents and teachers (or other adult resources through school) as a critical coping resource for teens and described escape or procrastination as a method of coping used by teens, particularly for those students with fewer coping skills.
Students identified and differentiated between phases or stages of coping with stressors. A conceptual model was developed to represent the path through which they described the journey through the coping process (Figure 36). The first phase includes activities that would be described as emotion-focused coping (Lazarus & Folkman, 1984), such as talking to friends, thinking things over in their head, being with pets, meditating, playing sports or doing something to make you feel better. Lazarus and Folkman (1984) described these coping strategies as ones that are used to manage the emotional and physiological response to stress. Friends were the first people students relied on to talk about problems over parents or other adults. During the emotion-focused phase, they also described a brief period of escape or distraction which could be labeled as avoidant coping-seen as a negative coping strategy. Students used these avoidant coping strategies, such as getting away (driving), providing distractions like watching TV and playing at the park or doing silly things with friends (playing around), to deal with the stress in the moment and blow off steam. The distractions for these students served the purpose of temporarily easing the tension created by the problem in order to more effectively return to deal with the problem. These types of distractions are described similarly in the literature (de Anda, Baroni, Boskin, Buchwald, Morgan, Ow, Gold et al., 2000; Mates & Allison, 1992; Patterson & McCubbin, 1987). Specifically, play has been identified in the literature as an essential method of coping. In children, it has been reported as a diversion from stress and a way for children to overcome anxiety and enhance conflict resolution (Kaminiski, Pellino, & Wish 2002).

The second phase identified by the students included moving on to problem-based coping strategies (Lazarus & Folkman, 1984) which are strategies used to manage or alter the problem causing the stress. Other findings in the literature also identify the two-pronged coping efforts (both emotion and problem-based) and suggest that using both provides a protective factor from
The teachers also identified the students’ use of avoidance in the face of a problem or situation they needed to solve. For example, they referred to students going to play video games or using other distractions instead of dealing with the issue they needed to deal with. They did not acknowledge these distractions as potential steps in problem-solving, but seemed frustrated by students’ use of the distractions rather than just getting on with solving the problem or doing what they needed to get things done. They did not realize that students (maybe not all students and maybe not in every circumstance) appear to need to go through the emotion-focused phase when the tension starts building and the things pile up (such as getting papers done, studying for exams, completing projects on top of extracurriculars) and may need and use the distractions in ways which don’t seem logical or straightforward to adults. Using emotion-focused coping strategies helped these students bridge the gap to move on to problem-focused coping. The students
discussed making decisions and choices about moving on and how to get past the stress and they identified problem-based coping strategies. These types of strategies such as making a plan, getting organized, managing the tasks, managing time, or addressing the problem are associated with more positive outcomes (Seiffge-Krenke, 2000; Suldo, Shaunessey, Michalowski, & Shaffer, 2008). Some students moved on to this better than others by having more coping skills, such as time management and organizational skills, or resources, such as friends or close adults, to help them move on or problem-solve. They identified that they needed more strategies to include in what we described as a ‘tool box of coping strategies’. They identified needing more time management skills and problem-solving coping skills. They received life skills training in the sixth grade, which was described as a helpful and positive program which focused on how to decline drugs and alcohol and how to improve communication and team building, but described that this was not enough to carry them through high school. They identified needing a booster session to deal with transition to high school, balancing the various roles (some new) that they may take on in high school such as being an athlete, an exceptional student, community volunteer, and an employee. This concept of building skills is supported in the literature. Lazarus and Folkman (1984) showed that enhanced social skills (namely an ability to communicate and get along with others) was a critical resource for coping because they facilitate problem-solving through the ability to communicate and engage others in assistance and support. I believe that better communication from parents to teens about their role as a guide and a resource as well as communication from teens to parents about their needs and expectations of parent involvement could bridge a potential communication gap about the role of parents and parenting in teen development.

In this study, teens were found to need emotional outlets to blow off the pressure (have a brief
escape) before being able to move on to addressing a problem or issue. Depending on their emotional maturity or available skills some students may not make the transition to problem-solving as well as other students or at all. Some students have more/better resources through emotionally cognizant and available parents and connections to teachers or even mature, emotionally available friends. This emotional availability and capability was independent of financial status. Chandra & Batada (2006) identified that poor student-teacher relations affected learning, academic performance and success, and general stress levels, so enhancing the emotional connections (trust and relationship building) between teachers and students can offer a coping resource for teens at the school. This could be fostered through non-judgement and closing the gap between the teachers’ and students’ perception of the use of avoidant coping mechanisms. Teachers described that the students needed to stop procrastinating and just do what they needed to do, but as one student described in her photograph narrative, she used the avoidant activity (goofing around with her friends on the swings) to clear her head and be able to approach the problem with better clarity. This doesn’t take away from the fact that the students need to better educated on problem-focused coping strategies, but maybe the avoidant strategy serves some purpose in the adolescent mind which acts as a pathway and enables them to move forward to problem-solving.

Students in this study reported going to the safety of various relationships (talking with peers, pets, and nature) to help them feel better and provide the immediate emotional relief from stress. Teens need positive relationships with both peers and adults to help them cope and a high self-esteem assists them in making these connections (Brooks, 1992; Gurney, 1987). The literature shows that strong bonds can also be formed with animals which help children cope (Kaminiski et al., 2002). These relationships (friends, pets, nature) also offer a temporary distraction from their
stressors. The students suggested that pets offered a safe place to share feelings and frustrations because they just listen without response or judgment. At times, teens just want to be heard without being told what to do or how to feel and they are looking for unconditional love and acceptance. Pets as an emotion-focused coping strategy has not been reported in the school health literature, although, animal assisted therapy and pet-therapy have been reported in other literature as methods to provide emotional support, healing, enhanced self-esteem, and psychological well-being to children and teens dealing with illness, hospitalization and abuse (Kaminski, Pellino, & Wish, 2002; Mallon, 1995). Dogs specifically have been reported being used as therapy in a variety of contexts within healthcare, such as intensive care units, clinics, pediatric hospitals, psychiatric facilities, and senior centers (Reichert, 1994) and were the subject of a number of student photos. Horses have also been reported as a method used for psychotherapy with children and foster children with depression. Having control and a responsive horse helped with increasing a sense of empowerment, self-confidence, and self satisfaction which are protective traits which enhance coping and achievement (Brooks, 1992; Kesner & Pritzker, 2008). Walsh (2009) states “companion animals can meet many of our core psychosocial needs and enrich our lives. They provide pleasure and relaxation; deep affection and steadfast loyalty; and security and constancy in our changing lives” (p. 476).

Students in this study also described going to nature to help them cope, such as taking a walk in the woods or being out on the water; they described a sense of reconnecting or recharging by doing this. Connection with nature for healing as a concept can be found in ancient wisdom. Eastern religions believe that humans must interact with nature to maintain balance in their lives and illness can be the result of disrupted balance. Reconnecting to nature is one way to restore this balance, which can be accomplished by interaction with animals, as well as directly with nature
The students’ coping photos also revealed that teens are thinking about situations more than we may give them credit for. They think about situations and look to themselves for answers first. It was a necessary step identified by them in assessing a stressful situation and was thought to facilitate the transition to a problem-focused strategy. Teachers, parents, friends, and other emotionally available adults could assist teens in bridging between the emotion-focused coping and the problem-based coping by providing support and having the emotional capacity to listen and at the same time step in to help with problem solving when asked. This may simply be asking questions to facilitate the problem solving process with the student. Although, it is interesting to note that the students in this study did not identify adults (family, teachers or other adults at the school) as a strength of the school or as a coping resource. These were only identified by the parents and the faculty/staff groups. Students identified their friends as people who they turn to first. This could have been due to the time pressure of the project and given more time to thoughtfully reflect on coping and moving on, adults from the school and family may have surfaced and been points of discussion. Because students identified talking with peers versus parents or teachers/staff as a first choice, it would be important to equip students with resources and skills to assist each other. For example, students could be trained as peer coping leaders as well as having adults within the school trained in this capacity. Mentoring has been shown to increase self-esteem as well as school connectedness which has been linked with higher academic achievement and a decrease in risky behaviors (CDC, 2009; King, Vidourek, Davis, & McClellan, 2002).

**Recommendations for action**
Increasing emotional capacity. The stress associated with teen life and academic performance cannot be taken away, but the perception of the stress can be reduced and effective coping skills can be added which can assist teens in dealing with the stress of school and social acceptance. Teachers and students both identified the pressure to excel and to take challenging courses associated with a high-achieving school. Teachers suggested that the students get stressed when there is a discrepancy between the expectations placed on them (by themselves and others) and the actual level of achievement. This gap is where stress occurs, particularly when the students lack skills or resources to help themselves work through the stress. Carl Rogers (1959) reported that discrepancies between our expectations and achievement (ideal versus actual image of ourselves or accomplishments) creates an imbalance or disconnect, but the ability to deal with this incongruity is facilitated by self-acceptance and self-esteem. Being faced with these emotional challenges and successfully navigating them allows for growth and development of the students. Increasing the emotional capacity of both teachers and students could enhance the ability to deal effectively with the stress created by these gaps. Emotional capacity has five main competencies: self-awareness, social awareness, self-management, relationship skills, and responsible decision making (Zins, Weissberg, Wang, & Walberg, 2004). Enhancing students’ social and emotional development increases their emotional capacity. Teacher emotional capacity can be enhanced as well through professional development and skills training in these areas. Enhancing both students and teachers emotional capacity creates a climate in which students feel supported and cared about by teachers and teachers are engaged in both the emotional and academic development of students resulting in higher academic achievement (Hawkins, 1997).

Increasing peer connections. The students identified peer connections as a way to decrease the stress associated with social acceptance and fostering better understanding and relationship-
building between students. They suggested team building activities as a way to connect to each other. They felt these activities could be offered through an offsite retreat (such as using a YMCA camp) at the beginning of each school year as well as activities offered once or twice within the school year hosted at the school. For these activities they suggested breaking into interclass groups and conducting team building games. There was also dialogue which arose from the discussion about team-building activities around changing the student government to a “house system” which is modeled after the British boarding school and has been implemented into a local parochial high school with positive results (Archbishop Moeller High School, 2005). This alternative student government system is designed to break students of all year groups into smaller groups or “houses” to encourage better connections, enhance interpersonal skills, foster better care of students, and develop leadership. This would connect students across all years/classes/grades and create more opportunities for student leadership and also provide a method for mentoring both new and existing students. The students in this study felt this would be a positive way in which to connect to their own year group peers as well as students from other years. Skill building and team building activities can enhance peer connections, resulting in increased school connection and academic performance. Increasing peer connections through enhanced social and emotional learning has been identified by the Centers for Disease Control (CDC) as a strategy to increase overall school connectedness (CDC, 2009). Having skills which enhance communication and foster good time management and organization are necessary components in the teen coping tool box.

Schools with welcoming environments and caring teachers are positive influences on student emotional health and social development (Resnik, Harris, & Blum, 1993; World Health Organization (WHO), 1996). Additionally, the school is the most logical place to offer
interventions or programs related to stress and coping for students because students spend most of their time there and a high percentage of stress is related to school (deAnda, Baroni, Boskin, Buchwald, Morgan, Ow, Gold, et al., 2000). deAnda et al., (2000) also recommend developing a tool box of coping strategies such as relaxation methods and problem-solving skills which can be accessed by students when faced with a variety of stressful situations. Again, the school venue is the best place to offer these types of programs (versus other community locations such as community centers and churches) because, as the students reported earlier when referring to branching out or exploring new relationships, they won’t do it if the decision is left up to them or if they are given a choice.

The recommendations offered by the students and teachers in terms of building peer connections and developing relationships and trust with students have both been identified in the literature as strategies to building school connectedness which has been shown to improve adolescent health and well-being. (Centers for Disease Control, 2009; Resnik, Harris & Blum, 1993). The suggestions also align nicely with at least five of the eight focus areas of the coordinated school health program namely, Health Education, Health Services, Counseling and Psychological Services, Healthy School Environment, and Family and Community involvement (CDC, 2009). The school, again, offers a logical place in which the school (including the school nurse, counselors, and health and physical education teachers to name a few), community agencies, and other resources can come together to systematically address the comprehensive health needs of students during the school day.

Expanding the school nurse role. Having programs offered at the school which enhance student resistance to stress is important, particularly in light of the fact that the role of the school is both to provide for the academic and the health needs of students. One important resource which
can be strengthened at the school is the role of the school nurse. *Healthy People* 2010 identifies the promotion of mental health and well-being as a leading indicator of public health. Furthermore, one of the objectives is to increase the proportion of the nation’s schools that have a nurse to student ratio of 1:750. This role could be enhanced at the high school to take a more active health promotion effort within the high school. The 2006 School Health Policies and Programs Study (Brener, Wheeler, Wolfe, Vernon-Smile, & Caldart-Olson, 2007) results identified that most schools provide only the basic health services, such as distribution of medications and first aid. Assisting with the mental health needs of teens is a multidimensional role and should enlist a collaborative approach in which the nurse, health educator, physical education teachers, school wellness team, school counselors and other school faculty/staff are engaged. Expanding this role to require mental health training seems logical with the ever increasing pressures, work load, and time commitments on the students.

**The photovoice process**

This study was an innovative participatory needs assessment using photovoice and focus groups to explore students’ health needs related to stress and coping in a high-achieving high school. The purpose of photovoice was 1) to engage the students in taking photographs of their stressors and ways in which they cope, 2) promote critical discussion about the issue of stress and coping, and 3) gain attention from the community and school district through the display of the photographs at a public community event and within the school (Wang, 1999; Wang & Burris, 1994). The focus groups offered perspectives on teen stress and coping through the lens of parents and faculty/staff and provided triangulation of the data gathered from the students. Additionally, it was the first photovoice project to include the participants in both selecting and developing their own photographs, which required more training and access to equipment and materials. The
The photovoice process was consistent with other projects which engaged youth in problem identification and advocacy (Chandra & Batada, 2006; Necheles et al., 2007; Strack, 2004). The process has provided students insight into their own stress and coping as well as their peers and has begun a dialogue within the community about the issue. Their work has also resulted in recommendations for action. The participatory nature of this project was critical to the identification of the conceptual model of coping described by these students. I originally devised the three photography prompts as a guide, but then engaged the students in discussion to see whether these prompts made sense to them and whether there were better prompts to get at their sense of stress and coping. They ultimately decided to change the third prompt to “moving on” which they were better able to conceptualize in their photographs. They were stuck when we first talked about photographs to make it better. They didn’t see the difference between the coping photos and what made it better. When one student suggested changing it to “moving on” and getting over the stress, this made more sense to the other students. Changing this prompt from “what makes it better” to “moving on” also made the interpretation of their process of coping more clear to me when it came to the analysis. If I had not allowed them to participate in the photo assignment decision-making related to the change in the third photo assignment, the differentiation in the stages of coping would not have emerged because I would have imposed my idea of the third round of coping (people or things that make it better) on the process which may not have elicited the same photos and discussion. This was an important part of the process and critical to the problem identification. A section of the transcript that helped this surface included the following statement:

I think the final process is getting rid of the stress and moving on from stress. The physical action of moving on, so things that help us to move on. Like you stress over something,
then you cope with it (This is the emotion-focused phase as described by them) and then you move on (This is the problem-focused coping described by them). When you are finished coping, you take a new direction and create a new beginning.

It was interesting to note that the students realized that they used diversions or distractions to cope with stress, but they also were aware that the diversions could only be temporary—the diversions don’t take the stress away—because by staying in the diversion too long adds to the stress and ultimately they had to move forward and deal with the problem.

Consistent with other research, the students felt valued and empowered in this project (Cargo et al., 2003; Lind, 2008) and they felt that they learned and gained experience as a result of the process (Vaughn, Forbes & Howell, 2009) in addition to moving to a higher level of critical consciousness by having time for reflection and critical thinking about the stress and coping and being involved in a process for social change (Carlson, Engebretson, & Chamberlain, 2006). This project benefited the students involved. They were able to contribute to potential positive change at the high school by creating an awareness of an issue, they learned more about stress and coping as was evidenced through the KWL activity, and they learned how to use their cameras to advocate for an issue. By having to create the photographs, the process also made them think about their stressors and ways in which they coped, which increased their level of awareness. They enjoyed being able to take pictures of what was meaningful to them which created a sense of empowerment and ownership in the process.

This research was different from previous research in four main areas. First, students’ specifically identified the different coping methods (emotion-focused and problem-focused) as phases or a process, whereas most studies have dichotomized coping into emotion-focused versus problem-based or approach versus avoidant coping. Second, students in this study identified
others’ use of alcohol as a stressor (friends or family), whereas most studies link alcohol use of teens as a (negative) coping method. Third, pets and nature were identified specifically as emotion-based coping for teens. Finally, this photovoice project was conducted within a photography class within the school day whereas most have been conducted in afterschool settings. This was also the first photovoice project in which the students developed their own photos, having the ability to choose the photo they wanted to print as well as the ability to manipulate the photograph for added visualization, creativity, and a deeper level of meaning and connection to the photo. Some of the ways in which students used their creativity in the photo development included adding color to the photo after it dried to draw attention to various parts of the photo and sandwiching the negatives to get a double image in the photograph. They used exposure time and filters in the developing process as well to add contrast in the photos.

Implications for Future Research

Future research related to this research study includes a follow-up and report on the impact of the recommendations presented to the school administration in terms of programs designed and implemented, role expansion, and policy changes. Specifically, research evaluating and investigating the impact of programs related to increasing peer connections as suggested by the students would assist in strengthening this protective factor of school connectedness. Future research could also be conducted with a larger population within this school to quantitatively evaluate and confirm the perceived stressors and coping identified by the students in this research study.

Future research to explore whether the conceptual model of the phases of the coping process is explained by other teens or research in other school districts is warranted. Structural equation modeling could be used to test whether the model accounts for the patterns of coping identified in
this study. In addition, more research to expand upon and determine how the connection to pets and nature as a coping technique could be incorporated into school curriculums.

Other research can measure the emotional capacity of school faculty and staff and students to explore the relationship of it to stress, coping, and connectedness in schools. Emotional capacity could be measured using the domains of self-awareness, social awareness, self-management, relationship skills, and responsible decision making. School administration could use these domains to establish the emotional capacity of potential hires and current faculty and then offer enhancement or training programs as professional development for faculty and staff or as part of school employee wellness programs.

Because of the very contextual nature of school and communities, future research could include student wellness councils in undertaking needs assessments in conjunction with community members and academics to identify health needs within each school or school district. Using a variety of data sources, such as surveys, focus groups, and photovoice, enhances the triangulation of the data and provides varying perspectives and ways of seeing the needs. Engaging students in a photovoice project can be an effective way to give voice to students’ conscious and subconscious issues that may otherwise go unseen. By having students participate in photovoice and the reflection that is required, it provides another opportunity for critical thinking (thinking about an issue and then translating that to a photograph) which is a positive educational outcome. Additionally, because of the increasing demands on student time related to school work expectations, jobs, extra-curriculars, and community service, teens are potentially cutting corners on sleep to account for the extra time needed to complete all the tasks. Lack of sleep can contribute to health issues, exacerbate the perception of stress and lead to poor coping. Future studies should look at teen sleep patterns and the connection to stress and overall quality of life in
Finally, future research could include a comparison of the alternative form of student government, the House system, versus the traditional form of student government in creating peer connection, enhancing academic and social and emotional learning, increasing meaningful student involvement, and increasing overall school connectedness.

**Implications for practice**

This research study provided a unique, participatory method in which students in a high-achieving high school were engaged in the process of visually identifying their issues and needs related to stress and coping in this environment. This research was important because the pressures and expectations on student achievement continue to increase putting them at risk of physical and mental health issues. The increase in pressure and expectations needs to be accompanied by enhanced and effective coping skills, which facilitate the healthy navigation through the teen years and build success in coping which lays the foundation for future success with stress management and coping as an adult.

School health professionals and wellness councils can use this information to conduct needs assessments, identify, design, and implement interventions that are specific to their school, and evaluate the impact of the interventions on measures such as stress, coping, mental health indicators, identification of depression and suicide, self-esteem, self-efficacy, and school connectedness. Practitioners can also design, implement and evaluate professional development programs for teachers and staff which relate to increasing emotional capacity and identification of depression and suicide risk in teens. Increasing the emotional capacity of both students and teachers enhances academic achievement. This fact can be used by practitioners to position health education programs which align with the overall mission of the school.
The coordinated school health program offers a comprehensive guide to core areas of health to be addressed within the school system. One of the components refers to family and community involvement in the school. I suggest not only identifying the family and community involvement in the school as a component of strong school health, but a reciprocal relationship which includes the active involvement of the school staff and administration in the community as well. This relationship was identified as a strength of this community and would potentially foster better relationships between the school and the community and a better understanding of the contextual nature of the community by the school staff and administration. An exemplar of this concept was utilized by a school district in Kentucky in which new school personnel embarked on a bus tour of the community in which the students lived. This gave them a visual understanding of the realities of the students’ lives (Price, 2010).

Health Education professionals within the school can use this photovoice process as teaching pedagogy to explore students’ perceptions of various health topics within the curriculum. Other teachers can use an adapted process to stimulate discussion and writing about photographs related to various areas. For example, in an English curriculum, students can use a photograph to depict a salient theme within a novel and then write about the theme, the meaning of the photograph, and how they relate. Photography teachers can use this method to create a unique photo assignment which allows students to explore an issue or concern which has meaning for them or as an assignment to use the camera for advocacy and social change. These methods can provide creative outlets for students and an innovative and unique approach to education for teachers.

I recommend that practitioners using photovoice as a methodology use the SHOWeD questions as a guide, but not feel bound to them to the point that they inhibit discussion by creating too
much of a tight framework of the discussion. Additionally, I would recommend giving students more time (approximately 1 week) to conceptualize and take the photographs and allowing for more time in the overall project to allow for more group discussion of the photographs. Having at least two class periods to discuss the photos would allow for time to have more in depth discussion using the SHOWeD questions as a guide.

PAR and the photovoice process are fluid and messy. I would encourage practitioners to let go of the rigid framework. Having an overall plan is necessary, but realize that this is a guide to the process. Let it unfold naturally. By relinquishing control, you allow for the opportunity to see where the process leads and what emerges, while at the same time maintaining an overall goal and framework of participation and decision-making by all. To be true to the PAR process, all phases of the research, including problem identification, data collection, data analysis, and dissemination, should ideally be conducted with the participants, but the process is flexible enough to be utilized with varying levels of participation. Relinquishing control does not mean that you cannot have input and make suggestions as the researcher or practitioner; you bring your strengths and knowledge to the table in the participatory process as well.

Limitations

Due to the rush to complete the project prior to the end of the school year, the time dedicated to this data collection was not as extensive as I would have hoped. Six weeks seems like a long time and is a big time commitment on the part of the school, but was a very tight time frame in which to complete this research study. Students reported that they would have liked to have more time to thoughtfully reflect on what they wanted to photograph and how they wanted to capture it. Despite this, students produced meaningful photos which possessed good technical qualities and served as great springboards for discussion.
The parts of the process that were not as in depth included the process evaluation, which was completed in the last 15 minutes of the final discussion session, and the Know-Want to know-Learned (KWL) activity. When looking at the KWL activity as an evaluation of knowledge, questions students had, and what the students learned as a result of the process, students appeared to have better knowledge of stress and stressors than they did about coping skills. They had a lot of questions about coping, although there wasn’t enough time to go back through and make sure that these questions were answered which was a weakness of the study. The time to get the project completed and do all the necessary work to get ready for the community forum didn’t allow for additional discussion days within the project. Given more time to complete these at different points during the process could have provided more valuable insight to what the students learned as a result of the process and an assessment of their learning. For practitioners who want to use this process, I suggest doing the project (as it was designed for this research study) over at least 10 weeks, if not an entire semester. Additionally, this project can be modified/shortened to include only one or two rounds of photos if being used for other purposes (e.g. exploring a health topic in health class, capturing themes within a novel).

Timing of the project was another limitation. This project was conducted at the end of the school year during the final push of school work, exams, (to include AP exams) and social events such as prom. I would begin the project at the beginning of the year to avoid the end of year rush and testing. This also provides more time to plan and organize community forums and dissemination of the results with the students.

“Photovoice is not intended to be a methodology in which an entire body of visual data is exhaustively analyzed in the social science sense (Wang & Pies, 2004, p. 100). It is an innovative paradigm directed by the students in which they collect the most meaningful data (take and select
the photographs) and then provide rich description about the meaning. Other students participating in this project may have selected different images to photograph and develop and, therefore, this group may not be representative of all students at the high school, although the themes/data from photovoice, and the focus groups were triangulated showing similar perceptions among the different groups strengthening the results.

Another limitation of the study was the varying motivation of participating students. The students did not have a choice whether to participate in the project; they only had a choice whether to participate in the research aspect. Some students appeared more motivated to truly explore the topic of stress and coping and give rich insight through their photos and narratives. Other students floated through the process; some completing all of what was asked of them and others completing only part of the assignments.

Finally, because of the short time in the classroom and the end of the school year, I was unable to assess the impact of the project on the students over time. The effects of the process might not have been evident to the students directly after the end of the project, but may have emerged and become more clear to the students over time. I was fortunate to run into a student over the summer after the project. He commented that the project has made him approach photography differently. He thinks about the meaning of the photograph more and overall has become a better photographer.

**Conclusion**

To my knowledge, this is the first research study using photovoice as a needs assessment methodology in a school to address school health needs and the first to use it in a high-achieving high school where resources and attention may be deemed unnecessary. The photos and the
narratives presented by the students offered an innovative method to explore the key stressors and the ways in which teens at this high school cope. It provided a unique lens for this community and a novel way to give students a voice. While the results may not be generalizable to other schools, the PAR framework of the research study and process of using photovoice and focus groups as a needs assessment for school health can be utilized by other schools to explore their specific health needs through a participatory process. The PAR/CBPR framework is well suited to school health in which partnerships can be formed with schools, community agencies, wellness committees, boards of education, and academic institutions and include all stakeholders particularly students, school personnel, community members who may not otherwise have a voice in school health. Furthermore, schools with similar contexts in terms of the small community, small school district, and high standard of academic excellence may find some relevance in the results.

Students in high-achieving schools identified stressors related to peer pressures, school and family which are similar to those identified in the literature, but they also identified stress related specifically to the nature of being in a high-achieving school, namely the pressure to maintain the reputation of the school through achievement in advanced placement courses, pressure to reconcile the gap between expectations created and actual achievement, and pressure to reasonably balance all of the roles and responsibilities of the heavy work load, jobs, sports and other extracurriculars. Recommendations specifically included offering additional mandatory skills and coping strategies through course offerings or programs during the school day.

Through the various perspectives of the teens, parents and faculty/staff which offered a better understanding of stress, coping and current assets of the school, specific recommendations have been made which address the needs identified. Interventions and programs designed by a team of stakeholders within the community which address the prioritized needs and feasibility of
implementation will be the next phase of this project. What we have confirmed through this project is that teens from all communities, ethnicities and social status have stress, although, the context of the school, community, neighborhood and family can present unique and varying stressors ranging from feelings of safety within the community and school to feeling the pressure of upholding a school’s academic excellence through achieving at a higher academic pace.

Photovoice was a useful data collection method to explore the stressors and coping of teens. The focus groups provided a useful way to explore parent’s, faculty, and staff perspectives of teen stress and coping. Photovoice, in particular, provided a tangible, visible evidence of how teens perceive stress and the ways in which they cope.

It has been a pleasure working with the students, faculty, staff, parents, Mrs. Smith and the high school administration on this research study. Allowing me to work on this project is a testament to their commitment to excellence in education and overall student welfare. I appreciate the raw honesty of the students in sharing their stories with me and in the honest insight shared by the parents and the faculty/staff. The school already possesses a large number of strengths including strong reciprocal school-parent involvement, connection of teachers and staff to students, a large variety of extracurricular activities, and strong school leadership which contribute to the overall academic achievement of the students. I look forward to continued academic success of students enhanced by increased emotional capability to deal with their ever increasing complex lives and situations.
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Yerkes, R. M. & Dodson, J. D. (1908). The relation of strength of stimulus to rapidity of habit-

Appendix A

Day One Classroom Curriculum

Day 1: Introduction to the Project

Materials Needed: Poster board, markers, and consent forms

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Minutes</td>
<td>Introduce myself</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Introduction of the research project</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Brief Discussion of photovoice</td>
</tr>
<tr>
<td>15 minutes</td>
<td>Icebreaker #1- Introductions: Students introduce themselves: name, grade, and tell something unique about them.</td>
</tr>
<tr>
<td>20 minutes</td>
<td>Discussion of the informed consent form for the Project</td>
</tr>
<tr>
<td></td>
<td>Pass out the informed consent/student assent</td>
</tr>
<tr>
<td></td>
<td>Read through document with them to make sure students understand what they and parents will be signing.</td>
</tr>
<tr>
<td></td>
<td>Send copy of the consent form home to parents.</td>
</tr>
<tr>
<td></td>
<td>Provide the envelope for students to return the consent form.</td>
</tr>
</tbody>
</table>
Appendix B

Icebreakers

Ice Breakers Used in the First week of the Project

Day 1 icebreaker activity- *Introductions*
The students and I took turns introducing ourselves. Students provided their name, age, grade and something unique about themselves by which they could be remembered. I introduced myself and provided some background about myself and my family, my schooling and why I was doing this project as well as something unique about myself.

Day 2 Icebreaker- *2 truths and a lie*
This activity was designed to allow me to get to know more about the students and for them to get to know more about me. It helped to create a personal connection. Students provided two facts about themselves and one lie (in a random order). I had to guess which piece of information was the lie. Since the students already knew each other pretty well, I was the one guessing the lie, although, the students did learn more information about each other that they had not previously known. I took my turn and offered two facts about myself and one lie. The students then identified the lie.

Day 3 Icebreakers- *Birthday Game & Guess Whose Favorite TV show.*
*The birthday game:* Without speaking and only using hand gestures or fingers for communication the students had to line up in order of their birthday (January through December). The person with the first birthday was identified at the start of the activity. Students were timed to see how quickly they could accomplish the task correctly.
*Guess whose favorite TV show:* The students and myself each anonymously wrote down our favorite TV show. I read the show out loud to the group and they had to guess who it belonged to.
Appendix C

Consent Form

University of Cincinnati
Parent Consent/ Assent for Child’s Participation in Research
Department: Health Promotion & Education
Principal Investigator: Beth Miller
Faculty Advisor: Dr. Amy Bernard

Title of Study: Photovoice as a Needs Assessment to Explore Stress in Teens

Introduction: We are conducting an action research study. You are being asked to take part in a research study. Please read the following carefully and ask questions about anything that you do not understand. If you are a parent reading this consent form, the term “you” refers to your child.

Who is doing this research study? The person in charge of this research study is Beth Miller of the University of Cincinnati (UC) Department of Health Promotion & Education. She is being guided in this research by Dr. Amy Bernard. There may be other people on the research team helping at different times during the study. Mrs. Gaski has volunteered to integrate the research activity into an assignment for the advanced photography class.

What is the purpose of this research study? The purpose of this research study is to explore the perceptions of stress and coping during high school from your perspective through the use of photographs and to identify your needs related to stress and coping.

Who will be in this research study? The students in the second semester advanced photography class at Wyoming High School in the 2009-2010 school year are eligible to take part in this study.

What will you be asked to do in this research study, and how long will it take? You will be asked to take photographs of the sources of your stress, what you do to cope with stress and the support systems within the community (e.g., school staff, friends, parents, church etc) that help you manage your stress or make it better. The students in the class will decide as a group the exact prompt/topic for the photo assignments. Photographs may include objects or people; however, if people are photographed, they will have to provide consent. The research process will take about 8 weeks. The research will take place within the advanced photography class during the regular school day.

There will be several parts to the research project:

- You will be introduced to photovoice research and ethics.
- You will complete an activity exploring what you know and want to know about stress and coping and then take photographs of your perceptions of stress, coping, and the things that make it better.
- You will develop your photographs in class.
- You will participate in reflection and discussion of your photographs and other students’ photos and work as a group to identify themes from the pictures. These sessions will be audio-taped to create a transcript of the discussions, assure accuracy of information and assist in the analysis of the themes.
identified.

- You will participate in reflection and discussion about the supports or strengths of the school/community that exist to help you with stress and identify of what else can be done to help.
- As a class you will decide how you want to share your photographs with the community. This may be a slideshow, an art exhibit or some other forum.
- You will participate in discussion as well as provide anonymous feedback about how the photography project helped you to identify your stressors and how you cope and to document what you and other students may need.

Are there any risks to being in this research study?

- The risk is not expected to be more than you would have in daily life.
- Some questions or discussions about your stress may be uncomfortable. You can refuse to answer any questions that you don’t want to answer. If you experience discomfort, you may stop answering questions at any time and, if needed, receive free counseling from Wyoming Youth Services Bureau.
- Complete confidentiality cannot be guaranteed because of the nature of the discussion in class; although efforts to minimize this will be discussed within the group at the start of the project; ground rules for confidentiality will be set by the group.

Are there any benefits from being in this research study?

By participating in this research study, you may increase your understanding of your own stress and coping mechanisms. You will also assist parents and staff in better understanding Wyoming high school students’ needs related to stress and coping.

Will you have to pay anything to be in this research study?

You will not have to pay anything to take part in this study.

What will you get because of being in this research study?

You will not be paid to take part in this study.

Do you have a choice about taking part in this research study?

You do not have to participate in this research study. You may choose not to participate or you may withdraw at any time by having a confidential conversation with Beth Miller. Neither your participation in school activities nor your grades will be affected by your decision not to participate or withdraw. Partial data from any withdrawing student will be used unless you request otherwise. If you choose not to participate or to withdraw, you will still participate in the class assignment, but your data from that point will not be included in the research.

How will your research information be kept confidential?

- Only myself and the research team will have access to the data.
- All data from this research study will be kept in a locked file cabinet or in a password protected computer file for three years. After that it will be destroyed by shredding or deleting.
- Transcripts will not contain your name or personal information.
- Your identity will be protected by using a pseudonym (alternate name). You will have the choice as to whether you want your identity on your photographs for the community forum or in any published work.
- The data from this research study may be presented and/or published; but you will not be identified by name unless you choose to be identified.
- Agents of the University of Cincinnati and the College of Education, Criminal Justice &
Human Services may inspect study records for audit or quality assurance purposes

- Ethics training at the beginning of the class will assist in maintaining your confidentiality
- The identity of participants and information about them will be kept confidential, unless the authorities have to be notified about abuse or immediate harm that may come to the participant or others.

**What are your legal rights in this research study?**
Nothing in this consent form waives any legal rights you may have. This consent form also does not release the investigator, the institution, College of Education, Criminal Justice & Human Services or its agents from liability for negligence. You will maintain possession of your photographs and only those you agree to release will be used by the researcher.

**What if you or your parents have questions about this research study?**
If you or your parent have any questions or concerns about this research study, you should contact Beth Miller at 513-236-6710 or millebh@email.uc.edu. Or, you may contact Dr. Amy Bernard at 513-556-3898

The UC Institutional Review Board – Social and Behavioral Sciences (IRB-S) reviews all non-medical research projects that involve human participants to be sure the rights and welfare of participants are protected.

If you have questions about your rights as a participant or complaints about the study, you may contact the Chairperson of the UC IRB-S at (513) 558-5784. Or, you may call the UC Research Compliance Hotline at (800) 889-1547, or write to the IRB-S, 300 University Hall, ML 0567, 51 Goodman Drive, Cincinnati, OH 45221-0567, or email the IRB office at irb@ucmail.uc.edu.

**Do you HAVE to take part in this research study?**
No one has to be in this research study. You will not get in any trouble if you say no. You may stop participating at any time. To stop participating, you should contact Beth Miller at 513-236-6710 or millebh@email.uc.edu. Although you do not have to participate in this research study, you do have to complete the assignments as part of the advanced photography class.

**Agreement:**
I have read this information and have received answers to any questions I asked. I voluntarily agree to participate in this research study. I also understand and agree that unless otherwise notified in writing, the University of Cincinnati assumes that permission is granted to use the text from project related sessions for the published dissertation, presentations and other publications, exhibits and/or other educational purposes. I will receive a copy of this signed and dated Parent Permission/child assent form to keep.

Participant’s Name (please print) ___________________________ Date of Birth ____________ (month/day/year)

Signature of participant (if 18 years or older) ___________________________ Date: __________

Signature/assent of participant (if under 18 years) ___________________________ Date: __________
PERSON OBTAINING CONSENT/ASSENT:

I have reviewed this form with the participant. An explanation of the research was given and questions from the participant were solicited and answered to the subject’s satisfaction. In my judgment, the subject has demonstrated comprehension of the information.

Signature and title of person obtaining consent/assent________________________________________

Date:______________________
Appendix D

Curriculum Day 2 in Classroom

Day 2 Photo Voice Introduction

Materials Needed: Binders with forms/documents (photo consent forms, KWL, background questionnaire, project calendar), poster board, markers,

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-10 minutes</td>
<td>Show examples of photovoice projects from the internet</td>
</tr>
<tr>
<td>15 minutes</td>
<td>Icebreaker- 2 truths and a lie</td>
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<td></td>
<td>Provide name and tell 2 factual pieces of information about yourself and one false one. Guess which one is false.</td>
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<td>Hand out binders</td>
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<td>Briefly go through binder to make sure all pieces are there</td>
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<tr>
<td>5-7 min</td>
<td>Review of Photovoice</td>
</tr>
<tr>
<td></td>
<td>The purpose of photovoice is to:</td>
</tr>
<tr>
<td></td>
<td>1) enable people to reflect their community’s issues and strength through photographs,</td>
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<tr>
<td></td>
<td>2) promote critical dialogue and knowledge about important issues through the discussion of photographs, and</td>
</tr>
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<td></td>
<td>3) reach decision makers or influential people through the exhibition of the photographs</td>
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<td></td>
<td>Show examples of photovoice pictures</td>
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<tr>
<td>5-7 minutes</td>
<td>Overview of the Project</td>
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<td>Review of project process with timeline- refer to calendars in binders.</td>
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<tr>
<td>5 min</td>
<td>Review consent forms/ question &amp; answer</td>
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<td></td>
<td>Gather consent forms and put in binder; make copies for next class; place completed consents in my binder</td>
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<tr>
<td>10 min</td>
<td>Discuss ground rules for discussion sessions</td>
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</table>
# Project Calendar/Timeline

## Project Schedule and Timeline

<table>
<thead>
<tr>
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<th>Monday</th>
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<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
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<tbody>
<tr>
<td>April 5</td>
<td>First day in classroom</td>
<td>Introduction</td>
<td>Develop film</td>
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<td>April 6</td>
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<td>April 8</td>
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<td>14</td>
<td>Print</td>
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<td>Discussion #1 Photos</td>
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<td>April 10</td>
<td>First day in classroom</td>
<td>Introduction</td>
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<tr>
<td>Develop film</td>
<td>Print contact sheet</td>
<td>Discuss forum details</td>
<td>Final discussion of #3 photos</td>
<td>Feedback session</td>
<td>Community art show</td>
<td>11 AM - 5 PM</td>
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<td>14</td>
<td>15</td>
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<tr>
<td>Finish photo</td>
<td>Create narratives for art show</td>
<td>Decide on forum details</td>
<td>Finalize forum and final preparation of photos</td>
<td>Finalize forum and final preparation of photos</td>
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<td>17</td>
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<tr>
<td>Scanned photos</td>
<td>Mat and mount</td>
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<td>June 2</td>
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<td>4</td>
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</table>
Appendix F

Background Questionnaire

**Background Questionnaire**

Name: ______________________________  Preferred pseudonym: _____________________

Circle:  Male      Female           Grade:                         Age:                    GPA (if known)______

My race/ethnic heritage is: (circle one)

Caucasian            Mexican-American (Hispanic)           African American, not of Hispanic origin
Asian or Pacific Islander        Native American Indian          Other _______________________

I have ____ brothers and _____ sisters.

Briefly describe your relationship with siblings:

Briefly describe your relationship with your parents:

I would describe myself as: (Circle one)

Very outgoing       Outgoing            Average            Quiet           Very quiet

Who do you talk to when you are upset or stressed out?

Do you/have you take(en) AP classes?  YES_____    NO_____
If yes, how many at 1 time; How many overall? Overall:_____  at one time:_____

Do you work outside of school?    YES____       NO_____ 
If yes, how many hours? _____

Do you participate in sports?    YES______   NO______
If so, How many and which ones?________________________________________________
Appendix G

KWL for Stress and Stressors

<table>
<thead>
<tr>
<th>What do you know about stress and stressors?</th>
<th>What questions do you have about stress and stressors? (What do you want to learn?)</th>
<th>What did you learn?</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
Appendix H

KWL for Coping

**KWL Coping**

<table>
<thead>
<tr>
<th>What do you know about coping with stress?</th>
<th>What do you want to learn / What questions do you have?</th>
<th>What did you learn?</th>
</tr>
</thead>
<tbody>
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</table>
Appendix I

Consent for Adults in Photo

Consent for Adults who may appear in Photographs

What am I being asked to do?
- You are being asked to give me your permission to take your picture.

Why are you taking these pictures?
- I am taking pictures as part of a research study collaboration between Wyoming High School and Beth Miller, a doctoral candidate at the University of Cincinnati. I am taking pictures to express my experiences with stress and coping.

How will you use these pictures?
- After I have taken my pictures, I will discuss them with Beth and the other members of my research group. There is the possibility that some of the photographs I take will be included in a photography exhibit or presentation. Your name will never be revealed, but there is a chance that someone may recognize you.

Do I have to have my picture taken?
- No you do not have to have your picture taken.

Has this research study been approved?
- Yes, the University of Cincinnati Institutional Review Board has approved this study

Who can I contact if I have any questions about this research study?
- If you have questions or concerns, please contact the student investigator, Beth, at 513-236-6710.

If you are willing to have your picture taken please read the following agreement statement carefully.

Agreement Statement:
By signing this consent form, I agree to have my picture taken. I also understand and agree that unless otherwise notified in writing, the University of Cincinnati assumes that permission is granted to use my pictures for project related discussions, exhibits or presentations.

________________________________                    __ __________________ date
Your signature

_________________________________                   ____________________ date
Photographer’s signature
Appendix J

Consent for Minors in Photo

Consent for Guardians of minors who may appear in Photographs

What am I being asked to do?
- You are being asked to give me your permission to take a picture of the minor in your guardianship.

Why are you taking these pictures?
- I am taking pictures as part of a research study collaboration between Wyoming High School and Beth Miller, a doctoral candidate at the University of Cincinnati. I am taking pictures to express my experiences with stress and coping.

How will you use these pictures?
- After I have taken my pictures, I will discuss them with Beth and the other members of my research group. There is the possibility that some of the photographs I take will be included in a photography exhibit or presentation. The name of the minor will never be revealed, but there is a chance that someone may recognize him/her.

Do I have to allow you to take his/her picture?
- No you do not have to allow me to take his/her picture.

Has this research study been approved?
- Yes, the University of Cincinnati Institutional Review Board has approved this research study.

Who can I contact if I have any questions about this research study?
- If you have questions or concerns, please contact the student investigator, Beth, at 513-236-6710.

If you are willing to have the minor’s picture taken please read the following agreement statement carefully.

Agreement Statement:
By signing this consent form, I agree to have the minor in my guardianship’s picture taken. I also understand and agree that unless otherwise notified in writing, the University of Cincinnati assumes that permission is granted to use his/her pictures for project related discussions, exhibits or presentations.

________________________________                    __ __________________ date
Your signature

_________________________________                   ____________________ date
Photographer’s signature
Appendix K

Ground Rules for class Discussion

1. Listen while others are talking

2. Be respectful of others’ ideas, feelings and stressors

3. Confidentiality- don’t discuss with others what other students talk about in the classroom discussions. People need to feel this is a safe space to share ideas, feeling, and information.
Appendix L

Curriculum Day 3 in Classroom

Day 3: Completion of forms and discussion of photo assignment #1

Materials Needed: binders, with forms (consent, KWL, questionnaire, calendar), poster board, markers, tape recorder to record discussion in the classroom

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 minutes</td>
<td>Icebreaker- Birthday game lineup &amp; favorite TV show</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Fill out background questionnaire</td>
</tr>
<tr>
<td>15 minutes</td>
<td>Complete the KWL activity for stressors and coping</td>
</tr>
<tr>
<td>15 minutes</td>
<td>Discussion of stressors and the first photo assignment: What are the things that create stress for you?</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Discussion of Photo Ethics- see list of questions</td>
</tr>
</tbody>
</table>

Ideas:
Create a title or name for our project
Appendix M

Stress/Coping Questions

Questions to guide the discussion about stress and coping

STRESS

2) What is stress to you?
3) How would you describe it?
4) Do you and other friends/peers experience stress?
5) How does your body feel when you are stressed? How does stress affect your mind/your thoughts?
6) What kinds of things cause students here at WHS to experience stress? (only provide examples if needed; e.g academics, athletics, homework, peers, media)
7) Where do you feel stress the most? In your thoughts? In your body? Both?
8) The things that create stress for us are called stressors. What are some of your stressors? Do you think these are similar for others in your class/peer group?

COPING

5) What is coping? How would you define it?
6) What kinds of positive things do you see other students at WHS doing to cope with stress?
7) What kinds of negative things do you see other students at WHS doing to cope?
8) What things do you do to cope with stress?
9) How would you handle stress of a final or AP exams?
10) Have you been taught certain strategies to cope with stress? (provide example if needed- e.g deep breathing, negative thought stopping, exercise, problem solving)
11) If yes, what have you been taught? Who taught you?
12) Who or where can you turn to deal with stress?
13) Who or where do you turn to deal with stress?
Appendix N

Photo Ethics Questions

*Photography Ethics Discussion Questions:*

What do you know about photography ethics?

Do you have their permission to take their photo?

Should you ask before or after?

How can you ask someone to be in your photograph?

Are there times when you don’t want to be photographed? When and why?

What do you do and say if someone says they don’t want to be photographed?

What would you do if someone asked you to destroy a photo that they said you could take?

How could you take a photograph to protect someone’s identity?

What problems could you run into being a photographer in your community?

What pictures/situations would you want to avoid?
Appendix O

Visual Flow of the Project

The Process

Introduction
- Questions
- demographics

Photovoice Training
- KWL
- About stressors/coping

Discussion & Creation of photo assignment prompt

Week 1
- Monday-Friday
  - Photovoice Training
  - KWL About stressors/coping
  - Discussion & Creation of photo assignment prompt

The Process

Friday
- Discussion of photos & next photo assignment (2. coping 3. moving on)
  - Main classroom

Tuesday
- Print contact sheet
- darkroom
- Select 2 photos to develop and discuss
- Main class

Wednesday
- Print 1 photo
- darkroom

Thursday
- Print 1 photo
- Dark room

Main classroom

Week 2-4

- Take photos (weekend)

Main classroom

Tuesday, wed and Thursday were usually days that the students floated between rooms and were in all different phases of their projects so I would conduct individual and small group discussions in the main classroom.

Week 3

- Monday
  - Develop & dry the role of film
  - Developing room

Week 4

- Tuesday
  - Print contact sheet
  - darkroom
  - Select 2 photos to develop and discuss
  - Main class

- Wednesday
  - Print 1 photo
  - darkroom

- Thursday
  - Print 1 photo
  - Dark room

- Friday
  - Discussion of photos & next photo assignment
  - Main classroom

Final Process

Week 5

- Forum Planning Session
- Forum Planning Session
- Forum Discussion and decisions Feedback session

- Discussion session

- Finishing photos

Week 6

- Feedback Session
  - "How well did the training prepare you for the project?"
  - "What did you like best and least about the photo assignments?"
  - "How helpful was it to take and discuss photographs in order to identify and discuss important issues related to stress and coping in your life?"
  - "Did the process of photovoice help you to increase your knowledge of stressors and strategies for coping?"

- Matting photos
- Writing final narratives
- Final KWL

May 16th 2010

Community Forum
- Feedback from attendees
Appendix P

Feedback Session Questions

Feedback session/process evaluation questions for photovoice

Goal of project:
- Identify needs of teens related to stress and coping during junior year of high school
- Tell others about needs
- Initiate action steps

Goals of photovoice:
- Enable people to record and reflect their communities strength and concerns through photographs
- Promote dialogue and knowledge about important issues through the discussion of photos
- Reach decision makers through public showing of photos

Goals of our forum
- Share information about our photos and what we have learned about the needs of teens related to stress
- Create dialogue between teens and parents, teachers, others about the issues identified.
- Create awareness about the issue of stress and coping through the eyes of the students

Photovoice
How well did photovoice help you in understanding and expressing your experience of stress?
How well did photovoice help you in understanding and expressing your experience of coping?
What did you like most about photovoice?
What did you like least?
How have you personally benefited from participating in this research study?
How do you think the community/school has/will benefit from our research project?
What suggestions do you have for me if I do a project like this again?
Appendix Q

Consent for use of the Photos

University of Cincinnati

Consent for Use and Publication of Photograph(s)

I give my permission for the selected pictures to appear in print, online or in other types of displays. I understand that my name will not be used unless I agree to have it published. I also understand that I can use a pseudonym instead of my real name. The pictures may be seen in print, copied, displayed and used and shown anywhere in the world. I understand that signing this form releases The University of Cincinnati and the researcher from any claims, actions, damages or demands of uses listed above. I state that this material has not be published before, either online or in print.

Title (or subject) of Photograph:______________________________________________

Title (or subject) of Photograph:______________________________________________

Title (or subject) of Photograph:______________________________________________

Title (or subject) of Photograph:______________________________________________

Title (or subject) of Photograph:______________________________________________

Title (or subject) of Photograph:______________________________________________

Student signature_______________________________Date:_______________________

Student Printed name:___________________________

Parent Signature:________________________________________Date:________________________

(if student is under 18)

Researcher Signature:____________________________________Date:________________________
Dear Parents, Faculty, Staff and Administration:

I have been working with a group of students at Wyoming High School for the last 5 weeks to explore stress and coping through the use of a photographic methodology termed “Photovoice”. The students have taken photographs which depict their experience of stress and coping and have created narratives to explain the meaning of the photographs.

The photovoice process culminates in a community forum/display so that others can see/hear the "voice" of the students through their photographs.

You are invited to come to view the photos and the narratives of the students about stress and coping in their lives. You will also have an opportunity to provide reactions, feedback or comments.

The photovoice display will be at the Wyoming Art Show, this Sunday, May 16th from 10 AM - 5 PM. We will be in either the student art tent located at the corner of Springfield Pike and Worthington Ave.

The Art show is a great outing in itself; there is artwork, jewelry, food, face painting for kids etc.

Let me know if you have any questions & we would love to see you there!

Best Regards,
Beth Miller
Appendix S

Photovoice Project Description for Community Forum

**Through their Eyes: Pictures of Teen Stress and Coping**

Ten students at Wyoming High School spent the last 5 weeks exploring stress and coping through the use of a photographic methodology called “Photovoice”. This project was part of a research study with Beth Miller who is working on the requirements for her doctorate in Health Education at the University of Cincinnati.

Photovoice is a method of working with underrepresented people in a community to give voice to their experiences through photographs.

The purpose of photovoice is to reflect their experiences, create a dialogue, identify strengths of the community and create positive change.

The photos draw attention to issues that might otherwise go unnoticed.

The students have taken photographs which depict their experience of stress and coping and have created narratives to explain the meaning of the photographs.

The photos are presented here at the Wyoming Art Show so that others can hear the "voice" of the students through their photographs. The goal is to create a community dialogue and promote action or social change.

As you view the photographs, use the following questions to construct your own meaning.

- What do you see?
- What is really happening (real meaning)?
- How does it relate to your own life?
- Why does this problem/situation exist?
- What can we do about it?

You have an opportunity to provide reflections, feedback, or comments through the comment card. Please let us know whether you are a student, parent, parent of a Wyoming high school student, community member, high school faculty/staff etc. Your comments may be used as part of the recommendations for change or for publication and/or presentation of this project.
Appendix T

Community Forum Comment Card

Please tell us about yourself: Circle One:
WHS Student       Other Student       Community Resident       Visitor

Parent of students in:     High School     Middle     Elementary (circle all that apply)

Other: ________________________________

Please provide any thoughts, reflections, feedback or recommendations on the teen stress photovoice project:
Appendix U

Comments from the Community Forum

<table>
<thead>
<tr>
<th>Commenter</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>High School parent</td>
<td>“Great idea; great start- is there any discussion/follow-up/resolution? Fine photos.”</td>
</tr>
<tr>
<td>Parent (high, middle, elementary)</td>
<td>“Great exhibit-really moving. A great way to help teens think through stress and solutions. Excellent.”</td>
</tr>
<tr>
<td>Parent (high, middle, elementary)</td>
<td>“Interesting how open teens are about their stressors”</td>
</tr>
<tr>
<td>Parent (middle/elementary)</td>
<td>“I am impressed by the students' honesty. To admit to these feelings will help them move on with their adult lives so much more quickly and achieve healthy independence quickly.”</td>
</tr>
<tr>
<td>Middle school parent</td>
<td>“I see all of the things I feel off and on with my own stress.”</td>
</tr>
<tr>
<td>Elementary parent</td>
<td>“Wonderful work. What a great idea to help children realize issues that affect them and be able to talk about them. Great!”</td>
</tr>
<tr>
<td>Elementary parent</td>
<td>“Great project; unique. Makes you think.”</td>
</tr>
<tr>
<td>Elementary parent</td>
<td>“Very powerful images and words. Would love to hear how the process of doing the art helped with their stress and coping (i.e what students learned).”</td>
</tr>
<tr>
<td>Elementary parent</td>
<td>“Great way for students to connect and explore feelings.”</td>
</tr>
<tr>
<td>Elementary parent</td>
<td>“Lots of deep insight. Well done. It makes you really think about the mind of a teen.”</td>
</tr>
<tr>
<td>Resident</td>
<td>“Nature and reflection and vacation seem to be the most common stress cure themes. Will keep that in mind for my kids.”</td>
</tr>
<tr>
<td>Resident/grandmother</td>
<td>“This is the first art show I have been to in Wyoming. I've lived here 11 months. I really loved it. I will come next year. The teen stress made me see through their eyes, even for me. Thanks.”</td>
</tr>
<tr>
<td>Resident</td>
<td>“very insightful”</td>
</tr>
<tr>
<td>Resident</td>
<td>“The photos and reflections often offer quite a deep insight into the teen's problems and methods of “moving on”. The photographs are beautiful. Already the fact that the students took so much effort in creating a beautiful and meaningful picture seems to me to give it (the problem) a different perspective.”</td>
</tr>
<tr>
<td>Resident</td>
<td>“The pictures were impactful (especially in black and white). Good representation of what teens feel stressed about. My favorites were themes around pets and friends as coping strategies (cat in tree &amp; girls giggling) and pictures of her being “herself” and being accepted for that (picture of her shoes and her hair).”</td>
</tr>
<tr>
<td>Resident</td>
<td>“Very insightful. Diverse settings for learning to deal with stress.”</td>
</tr>
<tr>
<td>Resident</td>
<td>“Intriguing concept.”</td>
</tr>
<tr>
<td>Resident</td>
<td>“I like the project- it provides kids the opportunity to analyze their environment- and it provides parents and community members a much needed dose of reality.”</td>
</tr>
<tr>
<td>Resident</td>
<td>“What a wonderful way for the kids to express themselves. Kudos”</td>
</tr>
<tr>
<td>Visitor (retired educator)</td>
<td>“What a wonderful expression of feelings shown. Great cross-curricular lesson!”</td>
</tr>
<tr>
<td>Non-resident</td>
<td>“Very interesting project. Students got the idea and produced meaningful pictures.”</td>
</tr>
</tbody>
</table>
Appendix V

Focus Group Guide

Welcome
Thank you for making your time available to attend our Focus Group about stress in teens at WHS.

- What we want to do.
- How the participants can help us to achieve our goal(s).
- Why the participants are suitable for the task.

We would like your perceptions of student stressors, their coping skills and strategies, and what you think makes their stress better. This information will be compared to what students say to identify gaps in perceptions of stress and coping. In the end, we hope to identify strategies/resources that exists to help students cope as well as identify additional resources that may be put in place to help.

Explain the means to record the session
e.g. We will audio-record the discussion as well as take notes. This will assist in accuracy of ideas and statements for analysis. All recorded information is confidential and pseudonyms will be used.

Explain that the participants have the right to withdraw from the session at any time.

Introduce and ask the participants to sign the consent form
- Make sure all participants have access and understand the consent form and have an opportunity to ask questions.
- Ask the participants to sign and return the consent form.

Introduce facilitator and the co-facilitator, if used.
- Your name and role
- What you do to relax or de-stress

Example:
My name is Beth Miller; I am a PhD student at the Health Education at the University of Cincinnati. I have 3 children, one of which is in 3rd grade at Elm School. My older two graduated from WHS and are now in college. I practice yoga to help me relax and rejuvenate.

Participants introduce themselves
- Ask all participants to introduce themselves in few sentences in the way that we introduced ourselves earlier. This is to break the ice and make the participants more comfortable in the group.
Discussion

- Clearly state each question before that question is addressed by the group. Then, facilitate discussion around the answers to each question, one at a time.
  a. Students experience stress when _____.
  b. What do the students do when they experience (that stressor)?
  c. What are the longer-term effects of feeling that way or being under stress?
  d. What are the things that make it (the stressor) better?

- Carefully reflect back a summary of what you heard (the note taker may do this) after all the questions have been addressed (not after each question).

- Ensure even participation. If one or two people are dominating the meeting, then call on others. Consider using a round-table approach, including going in one direction around the table, giving each person a minute to answer the question. If the domination persists, note it to the group and ask for ideas about how the participation can be increased.

- From the discussion of stressors, have them rank which ones are at most intense or the most important.
  o Which one is most intense or creates most stress in general?
  o Which one is most important to students?

Closing the session
After 60 minutes, summarize the findings, and ask if there is anything we have not discussed so far that needs to be added.

Thank the participants for their time, and adjourn the meeting.
Appendix W

Focus Group Recruitment Letter for Parents

Dear Parent,

My name is Beth Miller. I am a resident and parent in the Wyoming School district with a child currently in the 3rd grade and 2 children in college. I am conducting a research project exploring stress in students at Wyoming High School as a requirement for a doctorate in health education at the University of Cincinnati.

Because you have been identified as having a student in 10th through 12th grade for the 2009-2010 school year, you are invited to participate in a seventy-five minute focus group as part of this research study to explore your perceptions of stress in students. The proposed research has been approved by the Institutional Review Board at the University of Cincinnati.

The focus group will include up to 11 other parents. You will be asked several questions about stress in teens from which to provide feedback, comments, suggestions and insights. The focus group will be audio-recorded and transcribed verbatim. The audio and transcription will be reviewed for accuracy and stored in either a locked file cabinet or password protected computer. You may withdraw from the study at any time and/or may request not to have your data/comments used. All personal identifiers related to parents or students will be removed from transcripts. Comments will be shared with student research participants to stimulate discussion about the actions needed to deal with any misperceptions. The final results will be shared with the community and the school through a community forum.

Confidentiality will be requested of all within the group, but cannot be guaranteed. Time Involvement: Your participation will take approximately 75 minutes How will the results be used: Results from this research may be published in professional journals or presented at conferences, but all names and locations will be changed to protect the identity of participants.

The date for the focus group is __________ from 7:00-8:15 PM. The location of the focus group will be at the high school.

To register for the focus group please contact the principal investigator Beth Miller at 513-236-6710 or millebh@email.uc.edu. You are also invited to contact her with any questions.

Sincerely,
Beth Miller
Doctoral Candidate
University of Cincinnati
Health Promotion & Education
Dear Faculty and Staff,

My name is Beth Miller. I am a resident and parent in the Wyoming School district with a child currently in the 3rd grade and 2 children in college. I am conducting a research project exploring stress in students at Wyoming High School in the 2009-2010 school year as a requirement for a doctorate in health education at the University of Cincinnati.

Because you have worked with students during the 2009-2010 school year, you are invited to participate in a focus group as part of this research study to explore your perceptions of stress in students at Wyoming High School. The proposed research has been approved by the Institutional Review Board at the University of Cincinnati.

The focus group will include up to 11 other faculty, staff and/or administration. You will be asked several questions about student stress from which to provide feedback, comments, suggestions and insights. The focus group will be audio-recorded and transcribed verbatim. After assuring accuracy of the information, the audio-recordings and transcripts will be stored for 3 years in either a locked file cabinet or password protected computer. You may withdraw from the study at any time and/or may request not to have your data/comments used. All personal identifiers related to participants in the focus group or students will be removed from transcripts. Comments will be shared with student research participants to stimulate discussion about the actions needed to deal with any misperceptions. The final results will be shared with the community and the school through a community forum.

Confidentiality will be requested of all within the group, but cannot be guaranteed.

Time Involvement: Your participation will take approximately 75 minutes

How will the results be used: Results from this research may be published in professional journals or presented at conferences, but all names and locations will be changed to protect the identity of participants and the school.

The date for the focus group is _________________ from 3:15-4:30 PM.

To register to attend the focus group please contact the principal investigator Beth Miller at 513-236-6710 or millebh@email.uc.edu. Please contact her with any questions.

Sincerely,

Beth Miller
Doctoral Candidate
University of Cincinnati
Health Promotion & Education