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COMMUNICATION COMFORT AND ADOLESCENT RISK BEHAVIOR

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ABSTRACT

During their teenage years, adolescents often engage in risk behaviors as they search for their identity and strive for independence from their parents. A secondary data analysis was performed on findings from a larger study that addressed parental monitoring of adolescents. Parent-adolescent open communication, parental monitoring, parent-adolescent communication, and comfort communication were studied to test for a relationship to risk behaviors. The risk behaviors examined were delinquent / drug use behaviors, “sneak” behaviors, and minor rule breaking behaviors. The significant findings were, for females, communication comfort and the interaction between open communication and communication comfort predict less risk behavior engagement, and for males, problem communication predicts delinquent / drug using behaviors. Further studies, with larger, more representative samples, need to be done in order to draw further conclusions about the influence of parent-adolescent communication and adolescent risk behavior.

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Chapter 1

Introduction

Adolescence is a time of searching for self-identity and independence as teens attempt to establish relationships with peers and become independent from their parents or guardians. It is a time for trying new activities and determining future aspirations. Falling between childhood, when guardians are supposed to provide everything, and adulthood when individuals are likely to provide for themselves, adolescence can be difficult for teens as they try to determine their personal beliefs and expectations of themselves. Developmental psychologist Erik Erickson classified 12 to 18 year-olds to be in the identity versus role confusion stage of development (Santrock, 2011b). If identity is not found during this stage, the adolescent will be unsure of herself and her place in society which can lead to experimentation with different lifestyles or rebellious behavior (Mcload, 2008). Adolescence is the first time in an individual's life when she can analyze childhood identities and goals to define who she wants to be as an adult (Santrock, 2011b). Searching for an identity can lead to teens engaging in risk behaviors as they look try new things or to be accepted by their peers. This challenging stage creates a divide between teens and their parents that can be diminished through open lines of communication and teen disclosure. During this time it is important for parents to be supportive of their teens to protect them from harmful actions despite the self-centered nature of teenagers.

A supportive, positive relationship between parents and their teens serves as a protective measure against engaging in risk behaviors despite teens being focused on themselves rather than their relationships with others. Teens are likely to share information about school, social issues,

and future goals, but unlikely to discuss romantic feelings for others with their parents (Smetana, Metzger, Gettman, & Campione-Barr, 2006). Although adolescents are in control of how much they share with their parents, parents often misjudge how much information is actually being disclosed. Frequently, adolescents reveal more to their mothers than to their fathers, and female adolescents share more than their male counterparts (Smenta et al., 2006). A positive adolescent-parent relationship with adolescent disclosure has been associated with lower levels of adolescent delinquent behavior (Smenta et al., 2006). These factors indicate how a positive adolescent-parent relationship is protective against risk behaviors. Although there seems to be an increase in risk behaviors like smoking, alcohol use, drug use, and unprotected sex during adolescence, a strong relationship between parents and adolescents is protective for risk behavior engagement (Deptula, Henry, & Schoeny, 2010; Lippold, Greenberg, & Collins, 2013; Wang, Stanton, Li, Cottrell, Deveaux, & Kalijee, 2013) The amount of disclosure is dictated by the adolescent, giving the adolescent control, and supporting the adolescents' self-centered thoughts and actions.

Complicating the search for independence and identify described by Erikson, adolescents often display what David Elkind coined as *adolescent egocentrism* which is defined as teens only focusing on themselves (Santrock, 2011a). This adolescent egocentrism leads to difficulty in understanding that others may see the world differently. The self-centered view many young adults express prevents this age group from seeing that others are experiencing the same thing or that their parents may have lived through similar situations. It can lead to decreased communication with parents or desire for privacy – especially from parents – as adolescents may feel they are continuously being evaluated or scrutinized. As a consequence, teens may opt to communicate more or less with their parents depending on their situation and their perceptions of

the relationship with their parents. As teens evaluate their parent's intentions and whether their parent's perspective is positive or negative, they begin to make decisions regarding how much, and what, information to share. The conscious decision the teen makes about sharing with parents is defined as disclosure (Wang et al., 2013).

A healthy teen-parent relationship, with disclosure from both parents and adolescents, can potentially ease some of the stress an adolescent experiences dealing with peers, relationships, school, and self-identity. A healthy relationship is defined, in part, as one in which teens and parents openly communicate without judgments from either party involved. The quality of parent-adolescent relationship dictates how much parents and their adolescents communicate, but not necessarily what the adolescent elects to disclose.

The outcomes of parent-child relationships are bidirectional: parents are influenced by their children and children are influenced by their parents. Research shows that adolescents are more likely to disclose information to parents if they have a positive parent relationship (Tilton-Weaver, 2013). A positive parent relationship is one in which the parents provide unconditional support to their child and the adolescent feels comfortable to disclose information. Comfort with communication leads to more sharing from the teen. Open lines of communication between teen and parent have been shown to decrease involvement in risk behaviors (Wang et al., 2013). The development of the bidirectional relationship dictates what a parent asks and what the teen chooses to share (Lippold et al., 2013). When parents attempt to gain insight into their child's activities the teen may view it as probing or violating their developing independence. It is ultimately up to the teen what they disclose regardless of what parents ask; the information a teen shares with her parents is entirely under her discretion. Both sons and daughters commonly inform parents about their school, future, and social issues, yet they are less likely to open up

about personal issues such as relationships and negative peer pressures (Youniss & Smoller, 1985). Parents frequently over estimate how much they truly know about the lives of their teen, especially mothers and their knowledge about their daughters (Lippold et al., 2013; Smetana, Metzger, Gettman, & Campione-Barr, 2014). Wang et al. (2013) found a negative association between parental involvement and engaging in risk behavior, which suggests too much parental involvement may be risky. A positive parent relationship is likely to perpetuate a stronger bond and higher levels of perceived trust about risk behaviors.

Teenagers are known for engaging in risk taking behavior. For instance, many have their first encounter with drugs, alcohol, and sexual behavior as a teenager. Regardless of the action, most teens are more likely to partake in something potentially detrimental to their health than most adults. There has been significant evidence linking risk behavior engagement with an underdeveloped frontal lobe which is responsible for impulse control (Casey, Jones, and Hare 2008). Biologically speaking, brain development provides an explanation for teen's participation in risk sexual behavior, drugs, alcohol, and other dangerous behaviors, yet there are other explanations as well.

As can be expected, peers do indeed affect adolescent decision making. For instance, Kimberly Maxwell (2001) found that peers play a vital role in the development of adolescents. Peers shape opinions and social norms about risk behaviors. Through social interaction, adolescents' values and thought processes may adapt to align more closely with those of their peers. The National Longitudinal Study of Adolescent Health (AddHealth) observed peer interactions impact on the risk behaviors of smoking cigarettes, drinking alcohol, using marijuana, chewing tobacco, and sexual debut (Maxwell, 2001). The study found peer interaction can serve as a protective or a risk factor in questionable behaviors during the teenage years. This

relationship is similar to the relationship teens have with their parents, but as studies have shown teens are more likely to discuss all matters of their life with their friends instead of their parents.

We know that there is a relationship between how much a parent knows about their children and the behaviors kids choose to participate in. Parent-teen relationships provide valuable insight, yet do not explain why a teen discloses as much or as little as they do. It is our prediction that the higher the level of communication comfort the teen feels with her parent, the less likely she is to participate in risk behavior. Understanding the level to which a teen feels comfortable sharing with her parents may provide insight into the chances of partaking in precarious actions. Through analysis of survey results, we hope to draw conclusions about level of comfort in communicating about particular topics and the association of risk behavior engagement.

Chapter 2

Literature Review

Prior to reaching adulthood, individuals must go through childhood and adolescence. Psychologist Erik Erikson created a developmental theory based on the social world in which an individual lives (Lee, 2005). Unlike other developmental theories, which are based on chronological age, Erikson's is founded on events and social interactions. Erikson believed development progressed in distinct stages and he identified the psychosocial tasks for each stage as stage crises (Lee, 2005). He postulated if the crisis was not resolved an individual would not progress to the following stage. The theory Erikson developed has eight stages covering the entire life span of an individual. Even though the crisis in Stage 5 is identity formation, the organization of Erikson's theory implies the earlier stages are essential to finding one's identity during adolescence (Herman, 2011).

Erikson's Stages

During the first stage, Trust vs. Mistrust, of Erickson's model, infants learn about the reliability of their caregiver and establish a sense of trust which helps prevent insecurity and social anxiety later in life (Lee, 2005; McLeod, 2008). Stage 2 is Autonomy vs. Doubt and through this stage young children learn how to control themselves (Lee, 2005). If autonomy is not conquered with supportive parents at an early age, the child is at risk for feelings of inadequacy, low self-esteem, and an over reliance on others (McLeod, 2008). Building on their

self-control, children enter the Initiative vs. Guilt stage where they begin to meet their personal needs and implement their interpersonal skills as they play with peers (Lee, 2005; McLeod, 2008). Without an environment where children can interact with others, they can feel guilt and a loss of sense of purpose (McLeod, 2008). Taking initiative to interact with others aids in Stage 4: Industry vs. Inferiority. In Stage 4, children learn the social skills to properly function in society (Lee, 2005). Without these skills, self-doubt and an inferiority complex may develop hindering the child's success later in life (McLeod, 2008). Of particular focus for this paper is Stage 5: Identity vs. Role Confusion.

Stage 5 coincides with puberty and adolescence, which Erikson stated includes ages 12 to 19 (Block, 2011; Lee, 2005; Santrock, 2011b). With many physical changes and psychological demands, this stage can be challenging for adolescents. At this stage of life, it is expected that adolescents make decisions about who they want to be as an adult (McLeod, 2008). Adolescents consider the behaviors they have learned from their parents and make the decision to incorporate them or not into their lives (Herman, 2011). Friends, academics, experiences, and relationship with their parents aid in the development of self-identity. Whether intentional or not, sometimes parents create identity expectations for their adolescents (Wooten, 2011). For instance, parents may be lawyers and expect their teen to become a lawyer. As a consequence, the adolescent studies prelaw despite his passion for the arts. When parents force identities on their adolescents without giving the teen a chance to develop his own independent identity, the teen's mental health is at risk (Wooten, 2011). Parents should guide their teens to make choices that will help them succeed in life. Teens have make life choices about careers, sexual identity, and where they want to fit in society, independent of their parents' expectations (McLeod, 2008; Wooten, 2011). During this stage, adolescents begin to refer to their peers for guidance instead of their parents.

Without any support to become more independent or to create a personal identity, teens will become isolated and depressed and enter role confusion (Block, 2011; Lee, 2005). Role confusion is when individuals are unsure of their place in society which can lead to an identity crisis, feelings of unhappiness, or the establishment of a negative identity (McLeod, 2008). Adolescence is the final stage before becoming a young adult, and according to Erikson, an identity should be found at the conclusion of this stage (Isaacs, 2013). Successful completion of this stage indicates adolescents are prepared to enter adulthood.

In adulthood, people enter the Intimacy vs. Isolation stage (Stage 6) which builds on the dependency and trust established in the previous stages by building relationships (Lee, 2005). Having relationships is protective against isolation and depression (McLeod, 2008). Through relationships, individuals are able to give back to society in a positive manner. By leaving their mark, individuals demonstrate the generativity component of Stage 7: Generativity vs. Stagnation (Lee, 2005; McLeod, 2008). In the last stage of life, individuals reflect on their life. If individuals have no regrets, they have ego integrity, but if they have regrets they develop despair as they are dissatisfied with the outcome of their life (Lee, 2005; McLeod, 2008).

The developmental stages Erikson developed build on one another. The earliest stages are important because they help shape who individuals want to become. Stages 1 thru 5 are more focused on how an individual's interaction with others helps them to become independent. If there are problems solving crises that aid in becoming independent, individuals will have problems of loneliness, isolation, depressive symptoms and a sense of uncertainty about their contribution to the world. For this reason, it is essential that parents help their children navigate through the early stages so they can lead a productive life. Stage 5: Identity vs. Role Confusion is arguably the most challenging stage to navigate because of the many physical and physiological

changes happening simultaneously. With an underdeveloped frontal lobe, pressure from peers, and parental and individual expectations it is not a surprise that teens engage in risk behaviors as an outlet (Casey et al., 2008). Parental relationships are especially important during adolescence as they can be protective against risk behaviors.

Parent-Child Relationships

The relationship between an adolescent and his parent varies from tumultuous to seemingly perfect. The quality of the parent-child relationship is important for adolescent's safe growth and development. A parent-child relationship is complex as underlying factors contribute to the quality of the relationship. Parental temperaments, child temperaments, adolescent hormones, parenting style, lines of communication, trust, and peer groups are only some of the components that influence the relationship (Abar, Jackson, Wood, 2014; Kerr & Stattin, 2000; Lowe & Dotterer, 2013; McKay, 2015; Welsh, Kawaguchi, & Powers & 2015). When adolescents feel supported by their parents, a stronger, more positive relationship will ensue, which is a protective factor for delinquency (Crouter & Head, 2002; Eichelsheim et al., 2010).

It is obvious that parent-child relationships are important. Peer relationships are important as well. They provide an outlet to discuss aspects of life such as romantic feelings, sexual attraction and other components teens prefer not to talk about with their parents. Teens often rely on their relationships with their peers to make decisions instead of with their parents (McKay, 2015). This can either be protective against risk behavior engagement or supportive of it. Participation depends on the peers and the behaviors (Maxwell, 2002). On the other hand, positive parent-child relationships, more specifically parent-adolescent relationships, are

protective against adolescent engagement in risk behaviors (Abar, Jackson, & Wood, 2014; Kerr & Stattin, 2000; Lowe & Dotterer, 2013; Tilton-Weaver, 2013). Furthermore, positive parent-child relationships increase parental motivation to be involved in the child's life (Crouter & Head, 2002).

Parenting Styles

Parent-child relationships are influenced by the style a parent adopts and the child's reaction to the style. In the 1960s, Diana Baumrind developed a parenting style classification system through an observational study conducted on nursery age children and their parents (Parenting Styles, 2008; Shea & Coyne, 2008). The parenting styles are based upon how well parents meet the needs of their child and how well the parents' behavior expectations for their child are met ("Parenting Styles," 2008). Permissive parents have low expectations for behavior and meet their child's needs moderately; authoritarian parents demand proper behavior, but fail to meet the needs of their child; authoritative parents demand socially acceptable behavior and respond quickly to the child's needs ("Parenting Styles," 2008). The outcomes of each parenting type have been studied.

A permissive parenting approach leads to a general acceptance of the child. This type of parent does not set or enforce rules they make (Shea & Coyne, 2008). These parents are warm and loving toward their children, however whining or resistance from their children often leads to the child getting her way (Shea & Coyne, 2008). Permissive parents are overly accepting and conflict avoiding, so their children do not learn how to effectively diffuse conflicts (Givertz & Sergin, 2012). The outcomes for children raised in a permissive parenting environment are not

positive. Frequently, the children do not develop age appropriate self-regulation skills that Erikson stated are essential to developmental progression (Shea & Coyne, 2008). Associations have been found with conduct disorder, emotional problems, aggressive behavior, and fewer goal-directed activities (Parenting Styles, 2008; Shea & Coyne, 2008). Permissive parents may not react to these problems whereas authoritarian parents would overreact.

The authoritarian parenting style is drastically different from the permissive style. Authoritarian parents have strict rules, but fail to meet the emotional needs of their child. These parents are oblivious to the needs and wants of their children. Instead, they create rules that are harshly enforced (Shea & Coyne, 2008). Parents who use this style do not provide rationale for their rules and show no warmth toward their children (“Parenting Styles,” 2008; Shea & Coyne, 2008). Children who are raised by authoritarian parents often detest the situation, but do not voice an opposing view for fear of punishment (Shea & Coyne, 2008). As a coping mechanism, these children may display aggression, passive aggressive nature or socially withdraw instead of working through their feelings of frustration or anger (Shea & Coyne, 2008). In adolescence, children of authoritarian parents often have poorer self-esteem, social withdrawal, and conduct disorders (Parenting Styles, 2008; Scott et al., 2013; Shea & Coyne, 2008). This type of parenting does not balance parental expectations and child needs as authoritative parenting does.

Authoritative parents have rules in place for their child while simultaneously fulfilling the child’s needs. Parents who take this approach have open communication with their child and vocalize “expectations and standards in a warm and responsive manner” (“Parenting Styles,” 2008, p. 136). Children have a voice when their parents use this approach and provide input about the expectations, standards, and consequences of misbehaving (Shea & Coyne, 2008). An open, warm environment is conducive to continual development. These children are better

equipped to adapt due to the communication between parent and child (Parenting Styles, 2008). In fact, adolescents and children who had authoritative parents have the most positive outcomes when compared to children of permissive and authoritarian parents (Gavitz & Sergin, 2012) The balance between restriction and security helps children learn and function independently of their parents (Shea & Coyne, 2008). Research has attributed communication as a reason why children raised by authoritative parents often are more confident, independent, and have appropriate social graces when interacting with their peers and adults (Shea & Coyne, 2008).

Parenting is challenging and parenting style may change over time. The parent-child relationship is not stagnant and changes based upon parental actions and child actions (Abar, Jackson & Wood, 2014). Because the relationship is co-dependent on the parties involved maintaining open lines of communication is essential during difficult times. Communication is a key component of parent-child relationships.

Communication

Communication skills play an essential role in the relationship between parents and their adolescents. A positive parent-child relationship requires open communication from both parties (Stattin & Kerr, 2000; Tilton-Weaver, 2013). Through example and constructive criticism by parents, children learn positive communication skills (Givertz & Segrin, 2012). With this skillset, adolescents may have a better understanding of how to make informed decisions in response to peer pressure (Lippold, Coffman, & Greenberg, 2014). Having the ability to effectively communicate helps adolescents with their “identity formation and role taking ability” (Givertz & Sergin, 2012, p. 1114). Adolescents who avoid delinquency associate their identity

support from their parents with their strong communication ties (Stattin & Kerr, 2000). With positive communication from parents and adolescents, there is an increased likelihood that parents will have more knowledge about their teens' behaviors, friends, and activities. When adolescents are comfortable communicating with their parents, parents will have increased knowledge about their teen as well (Wang, Stanton, Li, Cottrell, Deveaux, & Kalijee, 2013). Open communication between teens and their parents has positive outcomes for both parents and their adolescents because parents are more knowledgeable about their teens and teens are less likely to engage in risk behavior. Positive communication serves as a protective factor against adolescent participation in risk behaviors (McKay, 2015; Wang et al., 2013). The information that adolescents discuss with their parents influences how protective communication truly is. When parents are open about alcohol and speak with their adolescents honestly, there is a decreased chance the teen will use alcohol (McKay, 2015). Problem communication is a risk factor for drug use and unsafe sex practices, so it can be inferred effective communication protects against those risk behaviors (Wang et al., 2013). Communication includes speaking and listening, but what an adolescent shares is completely under their control despite parental questioning and interest.

Parental Monitoring and Knowledge

As adolescents begin to assert their independence from their parents, it is still important for parents to know what their teens are doing. Parental monitoring is a parent's conscious effort to gain insight into their child's daily activities and experiences (Crouter, Helms-Erikson, Updegraff & Mchale, 1999; Kerr & Stattin, 2000; Lippold et al., 2014; Lowe & Dotterer, 2013;

Stattin & Kerr, 2000). Through monitoring, parents learn about their adolescent's school activities, adaptations, and whereabouts (Lowe & Dotterer, 2013; Stattin & Kim, 2000). Parents who are good monitors have laid the foundation for effective communication channels with their child so they can have a better understanding of their child's daily life (Crouter, MacDermid, McHale, & Perry-Jenkins, 1990). Low monitoring is associated with antisocial and delinquent behavior, criminal actions, illegal substance use, tobacco use, increased drug use over time, poor academic performance, risky sexual activities and deviant friends (Stattin & Kerr, 2000).

Findings about high levels of monitoring are inconclusive. In some instances high monitoring was protective against smoking and substance use likely due to socialization with a drug free, smoke free family environments (Crouter & Head, 2002). In other cases, too much monitoring resulted in rebellion and feelings of inadequacy (Givertz & Sergin, 2012). Despite parental efforts to obtain information, they still may not know about all aspects of their child's life.

Parental monitoring is related to knowledge. Knowledge increases through parental monitoring attempts (Stattin & Kerr, 2000). Although parents may take multiple approaches to obtain knowledge about their teen, the efforts are not indicative of what the parents actually know (Goodnow, 2002). Throughout adolescence, parental knowledge decreases as teens become more independent (Abar et al., 2014; Lippold, Greenberg, & Collins, 2013). This occurs naturally as adolescents begin to drive and work, becoming individuals separate from their parents just as Erikson implied. They establish a life outside of their family and do not always inform their parents of what exactly they are doing. Family environment, parental careers, and other children also influence how much knowledge parents have about their teen (Casey et al., 2008). Interestingly, mothers often have more knowledge about their teen than fathers, but parents know equal amounts when the mother works (Casey et al., 2008).

Parental knowledge protects teens from risk behaviors. Studies have found increased parental knowledge decreases substance use by communicating about the risks and influencing their teen's attitude (Lippold et al., 2013). High levels of knowledge are associated with less risk behaviors and teen delinquency (Kerr & Stattin, 2000; Lippold et al., 2014; Stattin & Kerr, 2000; Wang et al., 2013). The level of parental knowledge is predictive of substance use, teen delinquency, deviant behavior and indirectly teen pregnancy (Crouter & Head, 2002; Lippold et al., 2014; Wang et al., 2013). "Obtaining high levels of knowledge about youth activities may lead youth to engage in less alcohol, cigarettes, and other drugs" (Lippold et al., 2014, p. 875). As parental knowledge decreases as adolescents get older, studies have found an increase in marijuana usage, alcohol consumption, and risk behaviors (Abar et al., 2014).

Despite the protective measures that parental knowledge offers, it has not been found to protect against all behaviors. It does not protect against the risks of having unprotected sex (Wang et al., 2013). However, there is an association with adolescent parents monitoring with other adolescent parents and decreased sexual risk behaviors among teens (Stattin & Kerr, 2000). Furthermore, if parents overestimate the amount of knowledge they have it can be a risk factor for risk behavior engagement (Lippold et al., 2013). Sometimes parents increase their knowledge in response to adolescent risk behaviors, but they decrease their "knowledge acquiring behaviors in response to appropriate adolescent behavior" (Abar et al., 2014, p. 2184). The level of trust a parent feels with their teen is correlated with the amount of information they know about the teen's activities and experiences (Crouter & Head, 2002). When teens communicate more with their parents, they build the parent-child rapport which increases parental knowledge perception. In reality, teens control what they share with their parents. Because disclosure is the largest

predictor of knowledge, teens directly influence what their parents know by what they disclose (Stattin & Kerr, 2000; Tilton-Weaver, 2013).

Although there are many positive components to parental monitoring, there are potentially some negative consequences. If teens feel as though their parents are too controlling or asking too many questions they may start to rebel (Stattin & Kerr, 2000). There is a balance between monitoring to help the adolescent find their identity and independence while still offering guidance and setting age appropriate rules. When parents attempt to monitor school work closely, academic performance actually declines (Stattin & Kerr, 2000). Depressive symptoms and hostility have been tied to controlling parents who are very high monitors (Stattin & Kerr, 2000). Dominant, intrusive, possessive parents are likely to negatively impact their adolescent's self-esteem which makes them more susceptible to peer pressure (Givertz & Segrin, 2012; Stattin & Kerr, 2000). Too much solicitation is associated with adolescents' normbreaking behavior (Stattin & Kerr, 2000). Parents may ask sufficient questions without pestering their teen, but ultimately what the teen discloses is the majority of what parents have to increase their knowledge.

Adolescent Disclosure

Adolescent disclosure is the best way for parents to increase knowledge about their teens. Disclosure occurs when adolescents share information with their parents (Lippold et al., 2013). Being able to freely disclose to parents helps the adolescent become an individual and find their self-identity, and work through Stage 5 of Erikson's developmental stages (Smetana et al., 2006). It is the only factor contributing to knowledge that consistently predicts delinquent behavior and

alcohol use in teens (Kerr & Stattin, 2000; Wang et al., 2013). Teens who disclose to their parents have less delinquent behaviors, better academic performance, are protected against depressive symptoms, have increased self-esteem, and have better relationships with their parents, especially their mothers (Kerr & Stattin, 2000). Despite this, disclosure may not be protective against sexual risk behaviors (Wang et al., 2013). Overall, however, when teens disclose more, there is an increase in positive outcomes and less risk behaviors (Smetana et al., 2006; Stattin & Kerr, 2000).

The sharing may be voluntary or prompted by parental questioning, but nevertheless whether or not to disclose information to parents is one mechanism of control and independence adolescents have. Studies show girls typically disclose more, especially to their mothers (Smetana et al., 2006). Prompting adolescent disclosure can be difficult. Parents have to ask questions without annoying their teen. Excessive solicitation to get an adolescent to share can result in an increase of teens lying, not fully disclosing information or in rule-breaking behavior (Kerr & Stattin, 2000; Stattin & Kerr, 2000; Tilton-Weaver, 2013). Less disclosure is also related to conduct disorders which indicates aggression toward people and animals, property destruction, deceitful actions, theft or rule breaking (“Psych Central,” 2013; Scott et al., 2013; Smetana, 2006). Those who disclose less may do so for fear of punishment or because parents reacted negatively to disclosure of similar manner in the past (Kerr & Stattin, 2000; Tilton-Weaver, 2013). In boys, there was also a slight association between parental solicitation and male teen’s deviant friendships (Tilton-Weaver, 2013). The actual content of the solicited or voluntary disclosure remains the choice of the adolescent (Lippold et al., 2013).

Voluntary disclosure is more influenced by the child’s temperaments and the parent-child relationship. Adolescents who voluntarily disclose more are better at avoiding risk behaviors

(Eichelsheim et al., 2010). Parent-adolescent relationship quality contributes to how much a teen will voluntarily disclose. A positive parent-child relationship with trust, open communication, and supportive parents increases disclosure (Smetana et al., 2006; Tilton-Weaver, 2013). A negative parent relationship increases secrecy which is related to problem behavior (Tilton-Weaver, 2013). Previous responses to disclosure also influence how much a teen will share. If parents responded in a positive, comforting manner the teen will disclose more in the future (Kerr & Stattin, 2000). Adolescents also are more likely to disclose about “moral issues (which pertain to justice, welfare, or rights), conventional issues (the arbitrary norms, like etiquette and manners, that facilitate the smooth functioning of social systems), and prudential issues (which pertain to the individual's comfort, safety, or health)” than information about dating and friends (Smetana et al., 2006, p. 202). Teens gauge how much they will share based on what they feel parents have a right to know (Tilton-Weaver, 2013).

Adolescents are in complete control of what they disclose and their parents may perceive they know more than they actually do (Smetana et al., 2006). Communication comfort influences what and how much adolescents disclose to their parents.

Communication Comfort

Open lines of communication between adolescents and their parents indicate a positive parent-child relationship. Open communication is a method that helps families respond to developmental changes and/or situational needs through talking with and listening to others (Givertz & Segrin, 2012). It requires “empathetic, attentive listening, speaking for oneself and not others, and staying on topic” (Givertz & Segrin, 2012, p. 1113). Nonverbal cues such as eye

contact and body language are also components of communication (Segrin & Flora, 2011).

Communication comfort arises when the parents and the adolescents have established a positive relationship and are confident about disclosing thoughts to the other party. For instance, if a parent begins talking about sexual practices and the teen becomes embarrassed, the parent is more likely to be uncomfortable bringing it up again.

Communication comfort has to be exuded by parents and adolescents. When parents are unsure of themselves and are noticeably uncomfortable, the teen will not fully process everything that is shared with them (Blake et al., 2001; Jerman & Constantine, 2010). The timing of the conversation is also a key component. Making sure there is adequate time for the teen to ask any questions he may have and for the parents to cover all the material they want needs to be coordinated. When discussing sexual risks an appropriate setting also needs to be considered (Blake et al., 2001). Furthermore, communication comfort is associated with teens discussing their sexuality with their parents (Sneed, 2008). Having an environment where teens can openly talk about their sexual identity helps them form their self-identity.

Creating a safe, comfortable environment for open communication is the responsibility of the parents. Family structure and relationships within families influence the communication environment (Wight, Williamson, & Henderson, 2006). When parents have a strong relationship with each other, they are able to focus more on their adolescent's behavior and needs (Crouter & Head, 2002). Additionally, when parents have a positive relationship they are more likely to communicate with each other about the adolescent creating an environment where information is shared among all parties (Crouter & Head, 2002). Creating this environment is more challenging in single parent homes. Single parents have to support their children financially and emotionally without having a partner to support them. As a consequence, it may be more difficult to create an

open environment due to the high levels of stress associated with being the sole provider (Crouter & Head, 2002). Parental beliefs about communication also contribute to the type of communication environment (Sigel & McGillicuddy-De Lisi, 2002).

Cultural norms influence conversation topics. For instance, in Hispanic homes talking about sexual practices does not occur (Cashman, Eng, Simán, & Rhodes, 2011). Religious beliefs also influence what parents share. Very religious parents are less likely to communicate with their teens about risk behaviors (Smith, 2013). Parents of all cultures want their adolescents to find their identity while still protecting their young adult child. When there are open lines of communication mothers and daughters, in particular, are more likely to work together to establish the teenage girl's independence while still keeping their positive relationship (Salmon, 2011).

As mentioned previously, a positive relationship is protective against risk behaviors. Frequent, open communication is likely to increase communication comfort between the adolescent and parents. Most studies have found reiterative, open communication is especially protective against sexual risk behaviors (Blake, Simkin, Ledsky, Perkins, & Calabrese, 2001; Deptula, Henry & Schoeny, 2010; Jerman & Constantine, 2010; Sneed, 2008). With increased communication comfort, adolescents are more likely to ask questions about sexual behaviors and delay their first sexual experience (Jerman & Constantine, 2010). Although, one study on Scottish teens found the level of comfort with talking about sex was not related to sexual behaviors (Wight et al., 2006). An open communication environment, especially about sexual practices, increases the likelihood the adolescent will use contraceptive methods, have fewer partners, and abstain from having sex (Blake et al., 2001; Jerman & Constantine, 2010; Sneed, 2008).

The strength of parent-adolescent relationships is related to the teens' engagement in risk behaviors. Finding their self-identity, assists teens in building their independence from their parents as they less frequently identify as a child, but rather as an independent adult. There is a wealth of information about the association of communication and adolescent risk behavior, but it is not known how well communication comfort reduces risks in parental monitoring. Developmental progress, parenting style, parental knowledge, and adolescent disclosure are associated with adolescent risk behavior (Abar et al., 2014; Crouter & Head, 2002; Deptula et al., 2010; Goodnow, 2002; Kerr & Stattin, 2000; Lippold et al., 2014; Lippold et al., 2013; Lowe & Dotterer, 2013; McKay, 2015; Shea & Coyne, 2008; Smetana et al., 2006; Tilton-Weaver, 2013; Wang et al., 2013; Welsh et al., 2015). Building on the importance of communication, this study aims to examine if communication comfort is indicative of adolescent risk behavior. Based on the previous research we expect there to be an association between the level of communication comfort on a certain risk behavior and the adolescent's engagement in the risk behavior.

Chapter 3

Methods

The goal of this study was to test the relationship between adolescent-parent communication comfort and adolescent risk behavior using a quantitative, secondary data analysis approach. The data for this study were collected as part of a larger examination of parental monitoring among parents and adolescents. Participation in the study required parental consent and adolescent assent. The study was approved by the IRB of West Virginia University as for Metzger, Ice and Cottrell (2012) and the de-identified data utilized in the present thesis were used by permission of the Principal and Co-Investigators of the study.

Procedures

Participants

High school students (aged 12 to 17) in 15 rural Appalachian counties were invited to participate in a parental monitoring program. School administrators shared the study information with eligible adolescents through a letter, which included the purpose and procedure of the study. Along with the letter was the consent/assent documentation for the teens. A total of 247 teens, average age 14.81 years old participated. The majority of the participants identified themselves as White/Caucasian (n=237, 96%) and were females (n=172, 69.6%). Six participants identified themselves as African American/Black. There was more diversity in the ethnicities of female

adolescents (Caucasian/White, African American/Black, Asian/Pacific Islander, Native American, and Other) than the male adolescents (Caucasian/White and African American/Black).

Instrumentation

Developers of the parental monitoring program created a series of questionnaires exploring topics about parental monitoring strategies, monitoring knowledge, communication about risk behaviors, monitoring attitudes, and adolescent risk involvement at baseline and at three points after-intervention (4, 8, and 12 months). For the present study, only baseline data from adolescent self-report was used.

Parent-adolescent open communication was evaluated using a subscale of the Parent-Adolescent Communication Scale (Barnes & Olson, 1982). This included ten items about parental perception of their child's level of comfort and adolescents' comfort level with their parents. Parents and adolescents completed a modified version of the scale in which their responses ranged from "strongly disagree" (1) to "strongly agree" (4). Items were averaged for a scale score. Higher scores indicated greater agreement for having an open communication process with the parent (or adolescent). Reliability of this questionnaire was good with Chronbach's $\alpha = .82$.

To assess parental monitoring, adolescents completed a 12-item survey about their perception of parental knowledge (see Appendix A). The survey included three groups of questions (four per group) addressing the frequency of parental knowledge about whom adolescents are with, where adolescents are, and what adolescents are doing. The adolescents

responded with never (1), a few times (2), several times (3), and all of the time (4). These scores were average to get a single, perceived monitoring total. Higher average scores indicated more parental monitoring. Reliability was tested and Chronbach's alpha = .96.

To assess communication, participants completed a 30-item survey about the frequency (never = 1, a few times = 2, several times = 3, all the time = 4) in the past four months teens had talked with their parents about a variety of topics (see Appendix B). The scores were averaged to determine communication frequency. Higher average scores indicated more frequent conversation. The same 30 topics were used to assess communication comfort.

To assess communication comfort, a 30-item survey instrument was used (see Appendix C). Adolescents answered the questions using a very comfortable, comfortable, somewhat comfortable, and not comfortable scale. For analysis, very comfortable was assigned the value of 1, comfortable was assigned 2, somewhat comfortable was assigned 3, and not comfortable was assigned 4. The values were averaged across all domains of the comfort level. High scores in the communication comfort survey were indicative of high levels of discomfort. This survey was reliable with Chronbach's alpha = .97.

To assess adolescent risk behaviors, participants completed a 27-item survey asking how frequently (0 times, 1-2 times, 3-4 times, 5+ times) in the past four months teens had engaged in a range of behaviors (see Appendix D). Because the behaviors include a vast range of activities, a Principal Components factor analyses with Equamax Rotation and Kaiser Normalization was completed to identify distinct categories of behavior. The analyses resulted in three distinct factors, 1) "sneaky" behavior, 2) minor-rule breaking, and 3) delinquency/drug use. Items loading with an eigenvalues of > 1 were retained. Activities corresponding to "sneaky" behavior were "stayed out past curfew," "possessed materials that were against your parent's rules," and

“worked with friends to get around the rules” to name a few. Some of the minor rule breaking activities included “worn clothing and/or makeup that your parent thought was in appropriate,” “eat unhealthy foods or not enough healthy foods,” and “used instant messaging or email to talk to someone who your parent does not approve.” Delinquency/drug use was measured through activities such as “drunk alcohol,” “used tobacco,” and “vandalized property.” All of the risk behaviors were based on frequency recall in the past four months.

Data Collection

Parent and adolescent pairs were asked to independently answer the survey questions at baseline, four months post intervention, eight months post intervention, and one year post intervention. All surveys were answered at home and sent via traditional mail to investigators.

Data Analysis

Data analysis was completed using SPSS version 22.0 (IBM Corp., 2013). Linear regression analyses were utilized to examine the relation between communication comfort and three categories of adolescent risk behaviors: 1) sneaky behavior, 2) minor ruling breaking, and 3) delinquency/drug use. Given that other areas of parent-child communication, including open and problem communication have been related to engagement in risk behaviors, each model controlled for both open and problem communication, as well as participant age. Additionally, because perceived parental monitoring has been consistently linked with adolescent risk behaviors, each model also controlled for this variable. Next, it was believed that there could be an important interaction between open communication and communication comfort such

individuals higher in both open communication and communication comfort may yield the most protective benefit in terms of risk behavior reduction. Therefore, a comfort by open communication interaction terms was included in each model. Finally, all analyses were conducted separately for males and females given evidence of important differences between genders in overall communication between teens and parents; especially for sensitive topics such as risk behaviors (Wilson & Koo, 2010; Guilamo-Ramos, Jaccard, Dittus, Bouris, Holloway, & Casillas, 2007).

Chapter 4

Results

A relationship between communication comfort and open communication was determined using linear regression. High scores in communication comfort indicate the adolescent was uncomfortable discussing the various topics listed. High scores in open communication indicate the adolescents and parents agreed about having open communication about the topics listed. Figure 1 depicts the relationship between communication comfort and open communication for males and females separately. As individuals score higher with open communication, they become more comfortable (the outcomes were reverse scored for the purpose of this figure).

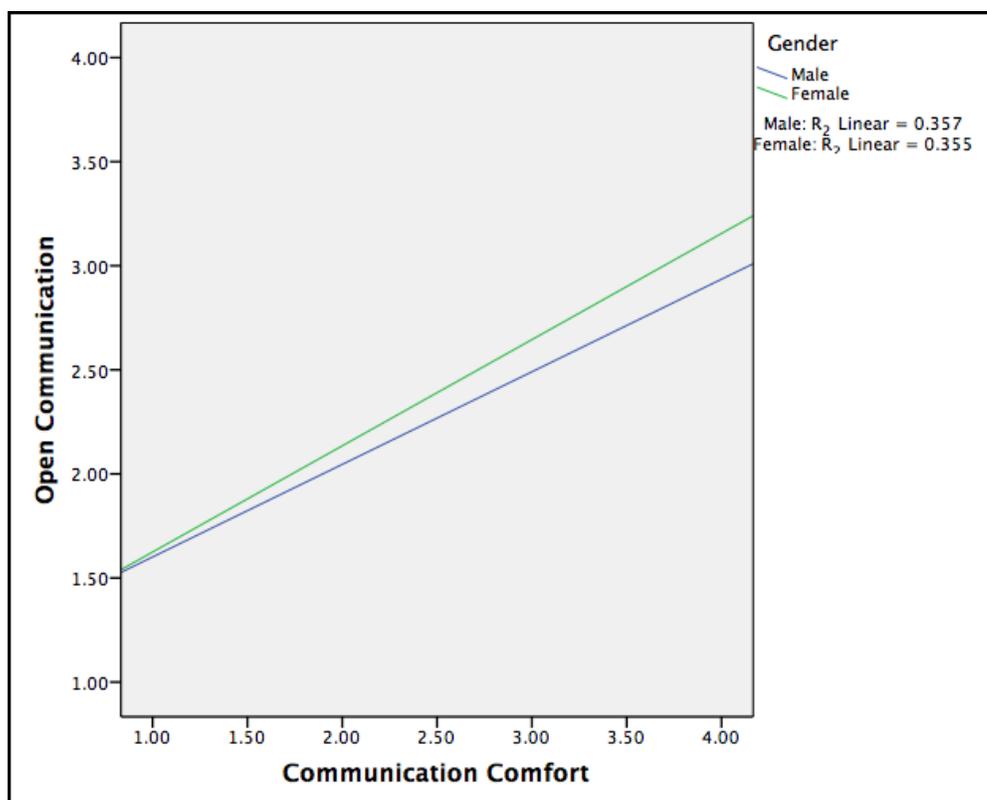


Figure 1: Relationship between communication comfort and open communication

The first analyses examined the influence of communication comfort on delinquency / drug use. Results demonstrate the overall model was significant for females, $F(6,165) = 13.63$, $p < .001$, but not for males, $F(6,67) = 1.52$, $p < .18$. In the female model, both communication comfort, $b = .39$, $t(167) = 3.16$, $p \leq .002$, and the comfort by open communication interaction, $b = .10$, $t(167) = 2.86$, $p \leq .005$ were statistically significant. The interaction suggests that females have a greater protection against engagement in delinquent / drug use behavior when both open communication and communication comfort are high, see Table 1.

Table 1¹: Hierarchical multiple regression results of delinquency/drug use

Variable	B^*	$SE B^{**}$	β^{***}
Males			
(Constant)	2.864	.824	
Kid age	-.026	.036	-.087
Open Communication	-.009	.097	-.014
Problem Communication	-.207	.094	-.274
Monitor Total	-.176	.173	-.346
Comfort Communication Total	-.202	.212	-.434
Interaction	.042	.061	.328
Females			
(Constant)	1.092	.420	
Kid age	-.026	.014	-.121
Open Communication	.050	.037	.115
Problem Communication	-.047	.039	-.088
Monitor Total	.097	.092	.228
Comfort Communication Total	.395	.125	1.057
Interaction	-.100	.035	-.917

¹ B is unstandardized beta

^{**} $SE B$ is standard error of beta

^{***} β is standardized beta.

These are the same for Tables 1 to Table 3

The second analysis examined the influence of communication for “sneaky” behavior. Results demonstrate the overall model was significant for females, $F(6,165) = 7.773, p < .001$, and for males, $F(6,67) = 2.322, p < .043$. In the female model open communication, $b = .066, t(167) = 2.532, p \leq .012$ was statistically significant. This finding suggest females have protection against engagement in “sneaky” behavior when they have open communication levels are high. In the male model, problem communication, $b = .123, t(69) = -2.646, p \leq .010$ was statistically significant. This finding suggests that problem communication is a risk factor for adolescent “sneaky” behavior, see Table 2. All other analyses are non-significant.

Table 2: Hierarchical multiple regression results of “sneaky” behavior

Variable	<i>B</i>	<i>SE B</i>	β
Males			
(Constant)	2.735	1.076	
Kid age	-.028	.047	-.070
Open Communication	.194	.127	.230
Problem Communication	-.325	.123	-.320
Monitor Total	.015	.226	.022
Comfort Communication Total	-.185	.277	-.295
Interaction	-.006	.080	-.037
Females			
(Constant)	2.415	.752	
Kid age	.003	.025	.009
Open Communication	.168	.066	.233
Problem Communication	-.136	.069	-.152
Monitor Total	-.280	.165	-.397
Comfort Communication Total	-.170	.223	-.275
Interaction	.050	.063	.275

The results for the influence of communication comfort on adolescent rule breaking behavior was the third analysis. Results demonstrate the overall model was significant for females, $F(6,165) = 11.915, p < .001$, but not for males, $F(6,67) = 1.894, p < .095$. In the female

model, open communication, $b = .051$, $t(167) = 2.189$, $p \leq .030$, and parental monitoring $b = .26$, $t(167) = -2.621$, $p \leq .030$ were statistically significant. This suggests that open communication is protective against female engagement in rule breaking behavior and that parental monitoring is a risk factor for the same behavior, see Table 3.

Table 3: Hierarchical multiple regression results of rule breaking

Variable	<i>B</i>	<i>SE B</i>	β
Males			
(Constant)	2.548	.872	
Kid age	.007	.038	.022
Open Communication	.043	.103	.064
Problem Communication	-.203	.100	-.250
Monitor Total	-.197	.184	-.361
Comfort Communication Total	-.247	.224	-.493
Interaction	.032	.065	.231
Females			
(Constant)	2.156	.576	
Kid age	.018	.019	.063
Open Communication	.111	.051	.190
Problem Communication	-.089	.053	-.123
Monitor Total	-.330	.126	-.579
Comfort Communication Total	-.154	.171	-.308
Interaction	.043	.048	.296

Chapter 5

Discussion

As adolescents strive for their independence from their parents, they [adolescents] may be unaware of how their relationship with their parents has influenced the decisions they make. Adolescents who have a more positive relationship with their parents are less likely to engage in risk behaviors like smoking, drinking, delinquent behaviors, and unsafe sex practices.

The current study examined if variables associated with parent-adolescent relationships predicted adolescent risk behavior. Predictors included age, open communication, problem communication, monitoring total, communication comfort and finally an interaction between open communication and comfort. There were no significant findings associated with age and open communication. Results differed by gender.

With females, comfort total and the interaction between open communication and comfort predicted fewer delinquent actions. It is interesting to note that open communication was only predictive when it was analyzed in in interaction with comfort. This could that indicate that open communication increased the protective benefit comfort communication. Open communication by itself was found to be protective against engagement in “sneaky” behaviors. This suggests that when adolescent females have open lines of communication with their parents, they are more likely to disclose information rather than sneak around their parents’ rules. Rule breaking behavior engagement was protected against with high levels of open communication, but parental monitoring was found to be a risk factor. If parents do not respect their adolescent daughter’s independence and monitor the girls too closely there is an increased chance the

adolescent will break their parents' rules. This could be an attempt to assert independence, but more studies need to be done to explore this relationship.

With males, the only variable that had statistically significantly predictive value was problem communication for delinquent behavior. Problem communication is a contributing factor to negative parent-adolescent relationships and poor relationship quality is known to predict risk behavior (Deptula et al., 2010; Lippold et al., 2013; Wang et al., 2013). There were no other statistically significant findings for male adolescents.

The findings from this study build on the existing literature and can be used to make recommendations for future interventions aimed at reducing adolescent risk behavior.

Recommendations

Get a nationally representative sample of adolescents to do the COPA program with their parents. With a representative sample, the findings can be used to establish interventions to improve the parent-adolescent relationship.

The parent-child relationship needs to be studied longitudinally (childhood to adulthood) to determine the best ways for parents to monitor while helping their adolescent enter adult. Establishment of an intervention to decrease problem communication to improve a total communication score.

Additional studies on open communication and comfort communication to determine how to create a positive communication environment to protect the adolescents from risk behaviors.

Limitations

The findings of this study are applicable mainly to White/Caucasian adolescents, primarily females. Had the original study recruited a representative population of adolescents across the country then the findings would be confirmed.

The study included a small number of males. With a larger sample, there could have been more significant findings applicable to males.

Mothers were the primary parent who participated in the original study. As a consequence, the findings do not apply to parent-adolescent relationships in general, but rather to mother-adolescent relationships.

The findings from this study are purely descriptive.

The data gathered for the original study and subsequently used in this study is subject to recall bias as participants were asked to answer questions about frequency of activities in the past four months.

Conclusion

Parent-adolescent relationships can be difficult to navigate, but through open communication, comfort communication, and decreasing problem communication adolescents are more likely to refrain from risk behaviors.

Appendix A

Parental Monitoring Portion of Adolescent COPA survey

Directions: Please indicate your response by filling in the circle.

How many times does your parent know who you are with on typical:	Never	A Few Times	Several Times	All the Time
1. School afternoons until 5 pm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. School evenings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Non-school days (weekends, holidays)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Non-school evenings (weekends, holidays)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many times does your parent know where you are on typical:	Never	A Few Times	Several Times	All the Time
1. School afternoons until 5 pm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. School evenings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Non-school days (weekends, holidays)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Non-school evenings (weekends, holidays)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

How many times does your parent know what you are doing on typical:	Never	A Few Times	Several Times	All the Time
1. School afternoons until 5 pm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. School evenings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Non-school days (weekends, holidays)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Non-school evenings (weekends, holidays)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix B

Communication Portion of Adolescent COPA Survey

Directions: Please indicate your response by filling in one circle.

In the PAST 4 MONTHS how many times have you talked to your parent in general about the following	Never	A Few Times	Several Times	All the Time
1. Drinking alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Smoking marijuana	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Trying other drugs (other than marijuana)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Vandalizing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Curfews	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Viewing pornography or inappropriate websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Using family finances (for example, using checks, credit cards)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Having materials that are not allowed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Skipping school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Sleeping problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Healthy eating habits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Exercising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Mood changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Having sex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Using condoms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Birth control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Directions: Please indicate your response by filling in one circle.

In the PAST 4 MONTHS how many times have you talked to your parent in general about the following	Never	A Few Times	Several Times	All the Time
18. Having other sexual experiences (not intercourse or “going all the way)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
19. Being suspended from school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Lying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Sneaking out of the house	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Choosing friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Smoking Cigarettes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Stealing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Taking car without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Going somewhere without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Problems with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
28. Problems with puberty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
29. Using instant messaging on a computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. Gambling (playing cards, games for money, slot machines, betting on events)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix C

Communication Comfort Portion of Adolescent COPA Survey

Directions: Please indicate your response by filling in one circle.

How comfortable are you in general in talking with your parent about:	Very Comfortable	Comfortable	Somewhat Comfortable	Not Comfortable
1. Drinking alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Smoking marijuana	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Trying other drugs (other than marijuana)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Grades	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Vandalizing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Curfews	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Viewing pornography or inappropriate websites	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Using family finances (for example, using checks, credit cards)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Having materials that are not allowed	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Skipping school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Sleeping problems	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Healthy eating habits	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Exercising	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Mood changes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Having sex	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Using condoms	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Birth control	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Directions: Please indicate your response by filling in one circle.

How comfortable are you in general in talking with your parent about:	Very Comfortable	Comfortable	Somewhat Comfortable	Not Comfortable
31. Having other sexual experiences (not intercourse or “going all the way)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. Being suspended from school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. Lying	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. Sneaking out of the house	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. Choosing friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. Smoking Cigarettes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. Stealing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. Taking car without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. Going somewhere without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. Problems with friends	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. Problems with puberty	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. Using instant messaging on a computer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
43. Gambling (playing cards, games for money, slot machines, betting on events)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Appendix D

Risk Behavior Portion of Adolescent COPA Survey

Directions: Please indicate your response by filling in one circle.

In the PAST 4 MONTHS, have you done any of the following:	0 Times	1-2 Times	3-4 Times	5+ Times
1. Drunk alcohol	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Used tobacco (smokeless or cigarettes)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Smoked marijuana	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Tried other drugs (other than marijuana)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Skipped school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Been suspended or in trouble at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Been arrested or picked up by the police	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Lied about your activities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Stolen anything	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Vandalized property	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Stayed out past curfew	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Snuck out of the house	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Taken care without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
14. Used family finances (e.g., credit card, cash, check) without permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
15. Gone somewhere without parent's permission	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
16. Possessed materials that were against your parent's rules (e.g., music, movies)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
17. Worked with friends to get around the rules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
18. Received poor grades at school	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Directions: Please indicate your response by filling in one circle.

In the PAST 4 MONTHS, have you done any of the following:	0 Times	1-2 Times	3-4 Times	5+ Times
19. Tried to look at things on the computer that would concern your parent (pornography, etc)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
20. Hung out with the “wrong” kids	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
21. Hung out with people your parent didn’t know	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
22. Worn clothing and/or makeup that your parent thought was inappropriate	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
23. Gone without bathing for many days	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
24. Eaten unhealthy foods or not enough healthy foods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
25. Used instant messaging or email to talk to someone who your parent does not approve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
26. Used instant messaging or email to talk about things your parent does not approve	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
27. Gambled (played cards, games for money, slot machines, bet on events, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

BIBLIOGRAPHY

- Abar, C. C., Jackson, K. M., & Wood, M. (2014). Reciprocal relations between perceived parental knowledge and adolescent substance use and delinquency: The moderating role of parent – teen relationship quality. *Developmental Psychology, 50*(9), 2176–2187.
- Barnes, H.L., & Olson, D.H. (1982). Parent-adolescent communication and the circumplex model. *Child Development, 56*, 438–447.
- Block, M. (2011). Identity vs. role confusion. In S. Goldstein & J. A. Naglieri (Eds.), *Encyclopedia of Child Behavior and Development* (pp. 785–786). Boston, MA: Springer US.
doi:10.1007/978-0-387-79061-9
- Casey, B. J., Jones, R. M., & Hare, T. a. (2008). The adolescent brain. *Annals of the New York Academy of Sciences, 1124*, 111–26. doi:10.1196/annals.1440.010
- Cashman, R., Eng, E., Simán, F. & Rhodes, S. (2011). Exploring the sexual health priorities and needs of immigrant Latinas in the southeastern United States: A community-based participatory research approach. *AIDS Education and Prevention, 23*(3), 236-248. doi: 10.1521/aeap.2011.23.3.236
- Crouter, A. & Head, M. (2002) Parental monitoring and knowledge of children. In M. H. Borstein (Ed.), *Handbook of parenting: Being and becoming a parent* (2nd ed., Vol. 3, pp. 461-484). Mahwah, NJ: Lawrence Erlbaum Associates, Publisher.

- Crouter, A. C., Helms-Erikson, H., Updegraff, K., & Mchale, S. M. (1999). Conditions underlying parents' knowledge about children's daily lives in middle childhood: Between-and within-family comparisons. *Child Development, 70*(1), 246–259.
- Crouter, A., MacDermid, S., McHale, S., & Perry-Jenkins, M. (1990). Conditions underlying parents' knowledge about children's school performance and conduct in dual- and single-earner families. *Developmental Psychology, 26*, 649-657.
- Deptula, D.P., Henry, D.B., Schoeny, M.E. (2010). How can parents make a difference? Longitudinal associations with adolescent sexual behavior. *Journal of Family Psychology, 24*(6), 731-739. doi:<http://dx.doi.org/10.1037/a0021760>
- Eichelsheim, V. I., Buist, K. L., Deković, M., Wissink, I. B., Frijns, T., van Lier, P. a C., ... Meeus, W. H. J. (2010). Associations among the parent-adolescent relationship, aggression and delinquency in different ethnic groups: a replication across two Dutch samples. *Social Psychiatry and Psychiatric Epidemiology, 45*(3), 293–300. doi:10.1007/s00127-009-0071-z
- Givertz, M., & Segrin, C. (2012). The association between overinvolved parenting and young adults' self-efficacy, psychological entitlement, and family communication. *Communication Research, 41*(8), 1111–1136. doi:10.1177/0093650212456392
- Goodnow, J. J. (2002) Parents' knowledge and expectations: Using what we know. In M. H. Borstein (Ed.), *Handbook of parenting: Being and becoming a parent* (2nd ed., Vol. 3, pp. 430-460). Mahwah, NJ: Lawrence Erlbaum Associates, Publisher.

- Guilamo-Ramos, V., Jaccard, J., Dittus, P., Bouris, A., Holloway, I. & Casillas, E. (2007). Adolescent expectancies, parent-adolescent communication and intentions to have sexual intercourse among inner-city, middle school youth. *Annals of Behavioral Medicine*, 34 (1), 56-66.
- Herman, W. (2011). Identity formation. In S. Goldstein & J. A. Naglieri (Eds.), *Encyclopedia of Child Behavior and Development* (pp. 779-781). Boston, MA: Springer US.
doi:10.1007/978-0-387-79061-9
- IBM Corp. (2013). Released 2013. IBM SPSS Statistics for Windows (Version 22.0) [Computer Software]. Armonk, NY: IBM Corp.
- Isaacs, D. (2013). Adolescents. *Journal of Paediatrics and Child Health*, 49(11), 881–2.
doi:10.1111/jpc.12422
- Kerr, M., & Stattin, H. (2000). What parents know, how they know it, and several forms of adolescent adjustment: Further support for a reinterpretation of monitoring. *Developmental Psychology*, 36(3), 366–380. doi:10.1037//0012-1649.36.3.366
- Lee, S. W. (Ed.). (2005). *Erikson's stages of psychosocial development*. Thousand Oaks, CA: SAGE Publications.
- Lippold, M. a, Coffman, D. L., & Greenberg, M. T. (2014). Investigating the potential causal relationship between parental knowledge and youth risky behavior: A propensity score analysis. *Prevention Science: The Official Journal of the Society for Prevention Research*, 15(6), 869–78. doi:10.1007/s11121-013-0443-1
- Lippold, M. a, Greenberg, M. T., & Collins, L. M. (2013). Youths' substance use and changes in parental knowledge-related behaviors during middle school: A person-oriented approach. *Journal of Youth and Adolescence*, 43(5), 729–744. doi:10.1007/s10964-013-0010-x

- Lowe, K., & Dotterer, A. M. (2013). Parental monitoring, parental warmth, and minority youths' academic outcomes: Exploring the integrative model of parenting. *Journal of Youth and Adolescence*, 42(9), 1413–25. doi:10.1007/s10964-013-9934-4
- Maxwell, K. A. (2002). Friends: The role of peer influence across adolescent risk behaviors. *Journal of Youth and Adolescence*, 31(4), 267–277.
- McKay, M. T. (2015). Parental rules, parent and peer attachment, and adolescent drinking behaviors. *Substance Use & Misuse*, 50(2), 184–8. doi:10.3109/10826084.2014.962053
- McLeod, S. A. (2008). Erik Erikson. Retrieved from <http://www.simplypsychology.org/Erik-Erikson.html>
- Metzger, A., Ice, C., & Cottrell, L. (2012). But I Trust my teen: Parents' attitudes and response to a parental monitoring intervention. *AIDS Research and Treatment*, vol. 2012, 1-10.
- Parenting Styles. (2008). In W. A. Darity, Jr. (Ed.), *International Encyclopedia of the Social Sciences* (2nd ed., Vol. 6, pp. 135-138). Detroit: Macmillan Reference USA.
- Psych Central. (2013). Conduct Disorder Symptoms. *Psych Central*. Retrieved from <http://psychcentral.com/disorders/conduct-disorder-symptoms/>
- Salmon, D. (2011). A qualitative study of how mothers and teenage daughters negotiate sex-related risk and independence. *Journal of Research in Nursing*, 17(3), 246-259.
- Santrock, John W. (2011a). Chapter 11: Physical and Cognitive Development in Adolescents. In *Life Span Development Thirteenth Edition* (pp 350-379). New York, NY: McGraw Hill.

- Santrock, John W. (2011b). Chapter 12: Socioeconomic Development in Adolescence. In *Life Span Development Thirteenth Edition* (pp 380-411). New York, NY: McGraw Hill.
- Scott, L. N., Whalen, D. J., Zalewski, M., Beeney, J. E., Pilkonis, P. a, Hipwell, A. E., & Stepp, S. D. (2013). Predictors and consequences of developmental changes in adolescent girls' self-reported quality of attachment to their primary caregiver. *Journal of Adolescence*, *36*(5), 797–806. doi:10.1016/j.adolescence.2013.06.005
- Segrin, C., & Flora, J. (2011). *Family communication*. New York: Routledge.
- Shea, S. E., & Coyne, L. W. (2008). Parenting Styles. In N. J. Salkind & K. Rasmussen (Eds.), *Encyclopedia of Educational Psychology* (Vol. 2, pp. 760-765). Thousand Oaks, CA: SAGE Publications.
- Sigel, I. E., McGillicuddy-De Lisi, A. V. (2002) Parental beliefs are contagious: The dynamic belief systems model. In M. H. Borstein (Ed.), *Handbook of parenting: Being and becoming a parent* (2nd ed., Vol. 3, pp. 485-508). Mahwah, NJ: Lawrence Erlbaum Associates, Publisher.
- Smetana, J. G., Metzger, A., Gettman, D. C., & Campione-Barr, N. (2006). Disclosure and secrecy in adolescent-parent relationships. *Child Development*, *77*(1), 201–17. doi:10.1111/j.1467-8624.2006.00865.x
- Smith, S. J. (2013). Risky Sexual Behavior Among Young Adult Latinas: Are Acculturation and Religiosity Protective? *Journal of Sex Research*, *37*–41. doi:10.1080/00224499.2013.821443
- Sneed, C. D. (2008). Parent-adolescent communication about sex: The impact of content and comfort on adolescent sexual behavior. *Journal of HIV/AIDS Prevention in Children & Youth*, *9*(1), 70–83. doi:10.1080/10698370802126477

- Stattin, H., & Kerr, M. (2000). Parental monitoring: A reinterpretation. *Child Development*, 71(4), 1072–1085.
- Tilton-Weaver, L. (2013). Adolescents' information management: Comparing ideas about why adolescents disclose to or keep secrets from their parents. *Journal of Youth and Adolescence*. doi:10.1007/s10964-013-0008-4
- Wang, B., Stanton, B., Li, X., Cottrell, L., Deveaux, L., & Kalijee, L. (2013). The influence of parental monitoring and parent-adolescent communication on Bahamian adolescent risk involvement: a three-year longitudinal examination. *Social Science & Medicine (1982)*, 97, 161–9. doi:10.1016/j.socscimed.2013.08.013
- Welsh, P., Kawaguchi, M. C., & Powers, S. I. (2015). Mothers, fathers, sons, and daughters : Temperament, gender, and adolescent-parent relationships. *Merrill-Palmer Quarterly*, 44(1), 77–96. Retrieved from <http://www.jstor.org/stable/23093394>
- Wight, D., Williamson, L., & Henderson, M. (2006). Parental influences on young people's sexual behaviour: A longitudinal analysis. *Journal of Adolescence*, 29(4), 473–94. doi:10.1016/j.adolescence.2005.08.007
- Wilson, E. K. & Koo, H. P. (2010). Mothers, fathers, sons, and daughters: gender differences in factors associated with parent-child communication about sexual topics. *Reproductive Health*, 7, 31. doi: 10.1186/1742-4755-7-31
- Wooten, R. (2011). Identity foreclosure. In S. Goldstein & J. A. Naglieri (Eds.), *Encyclopedia of Child Behavior and Development* (pp. 779). Boston, MA: Springer US. doi:10.1007/978-0-387-79061-9

ACADEMIC VITA

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Education

Milton S. Hershey Medical College

Master's of Public Health

Hershey, PA

Class of 2015

The Pennsylvania State University, Schreyer Honors College

College of Health and Human Development

University Park, PA

Class of 2015

Bachelor of Science, Biobehavioral Health

University of Seville

Council on International Educational Exchange (CIEE)

Seville, Spain

Summer, 2013

Advanced Language Summer Program

Relevant Experience

Dental Task Force

(2014-present)

- Facilitated meetings with the Dental Task Force to change how the Hershey Medical Center manages patients with dental health needs in the Emergency Department.
- Generated a flier on proper oral hygiene for English speakers and a separate one for Spanish speakers.
- Established a list of all the dental clinics in the counties surrounding Dauphin County, Pennsylvania to be distributed to patients with a dental need.
- Developed a list of oralmaxillofacial surgeons in a 25 mile radius from the Hershey Medical Center. This information is distributed to Hershey Medical Center patients who may require oralmaxillofacial surgery.
- Conducted a retrospective chart review to analyze the common characteristics of individuals who use the Emergency Department for their oral health needs instead of seeking attention from a dental provider over a two year period.
- Prepared a list of recommendations to help fix the issue of individuals using the Emergency Department for dental services, despite dentistry being out of the scope of practice of physicians.

Shadowing

(2014-present)

- Shadowed Jennifer Kraschnewski, M.D., MPH in an internal medicine clinic at Hershey Medical Center weekly to observe medical treatment in a primary care setting.
- Created a handout on the Affordable Care Act for the patients seen in the clinic. The handout focused on preventive services covered by the Affordable Care Act.

Cardiac Care Mission Trip

(2013)

- Traveled to Guayaquil, Ecuador with a team of physicians from Hershey Medical Center to observe open heart surgery on pediatric patients who otherwise would not receive the lifesaving surgery.
- Participated in the screening phase of the trip by taking blood pressures, obtaining pulses, and interviewing patients about their past medical history.
- Taught the team of Ecuadorian health care providers about open heart surgery in the United States.
- Translated for both medical teams so they could effectively communicate, ask questions, and foster a mutual respect for medicine in both countries.
- Interacted with patients and parents as they awaited surgery or to be discharged.
- Learned about open heart surgery from the surgeons, cardiologists, and medical residents. Observed the surgeries while what was occurring was explained.

Center Volunteers in Medicine (C.V.I.M)

(2012-2014)

- Translated for the Spanish speaking patients, checked patients in and assisted them to their exam room, and helped to do office work.

- Promoted participation in organized events through direct phone contact with patients.

University Ambulance Service (2012-present)

- Volunteered (2012-2013) as an EMT for 1 year with the student run emergency medical service at Penn State University.
 - Served as a third crew member on ambulance calls.
 - Responsible for writing charts and completing the necessary paperwork.
- Promoted to crew member (2013-present) and served as the primary provider or ambulance driver for 911 calls.
 - Train the new volunteers how to respond to emergency situations and how to effectively treat patients.
- Held position of mentor (2013-2104). Was assigned certain volunteers in the program and met with them on a weekly basis to improve skills, patient interaction, and general information about emergency medical services.

Research Assistant (2012-2013)

- Dr. Byron Jones' Pharmacogenetics lab (Spring 2012).
 - Worked to examine the effects of paraquat toxicity on Parkinson's disease.
- The national Work, Family, Health Project overseen by PSU faculty Dr. Kelly Davis (Spring 2013).
 - Transcribed interviews assessing the effectiveness of the S.T.A.R.T. intervention which aimed to improve the work environment which would in turn decrease stress levels and improve relationships with family members.

Teaching Assistant (2011-2014)

- Served as an additional resource for Freshmen Schreyer scholars enrolled in EDTHP 234H (Leadership Jumpstart) while assisting Professor Dr. Judy Ozment with teaching, lesson plans, and grading.
 - Monitored small groups and their progress throughout the semester.
 - Provided feedback to students about their individual and their group assignments.
- Served as an additional resource for students enrolled in Biobehavioral Health 143: Drugs, Behavior, and Society.
 - Graded assignments, answered questions, and proctored exams for students.

Concordville Fire and Protective Association (2010-present)

- Volunteer as an EMT with Concordville Fire and Protective Association located in Concordville, Pennsylvania.
- Respond to emergency calls in Concordville during breaks from college.

SHOTime Mentor (Schreyer Honors College Orientation) (2011-2013)

- Served as a resource for all students new to the Schreyer Honors College.
- Led ice breakers and discussions which created an environment for all incoming scholars to get to know their peers in a safe environment.

Mid-State Literacy Council (2012)

- Volunteered with adult learners to help develop English speaking skills.
- Taught two classes to adult learners from across the globe who were interested in learning more about the English language and how to effectively communicate in the United States.

Activities/Organizations

Bridge Ghanna (2014-present)

- Taught lectures to a school in Ghana through videoconferencing.

Community Health Council (2014-present)

Secretary (2014-present)

- Helped found the PSU charter for the global nonprofit focused on preventative care.
- Monitor club member involvement, send emails, and record meeting minutes.

Emergency Medical Students Association (EMSA) (2012-2014)

Chair of intramural sports (2013-2014)

- Encouraged club members to promote their health by being physically active in a team based activity.
- Served as captain for the intramural sports league and lead teammates both on and off the field.

Leadership Jumpstart Club (2011-2014)

Treasurer (2011-2014)

- Managed the club's bank account and fundraisers.

Schreyer Honors College Student Council (2010-2011)

- Assisted in giving tours to prospective and accepted students to Schreyer.

PSU Women's Club Ultimate (ISIS) (2010-2012)

President (2011-2012)

- Organized practice and events weekly to improve technique and work on team cohesiveness.
- Registered the team for tournaments.

Skills and Qualification

- Certified Health Education Specialist (C.H.E.S.) (Taking the exam 4/25/2015)
- Infant and Adult CPR/AED certified through the American Heart Association
- American Heart Association CPR/AED instructor
- Emergency Medical Technician
- Proficient with Excel, Word, PowerPoint, and conversational Spanish

Honors/Recognitions

- Schreyer Honors Scholar, Phi Eta Sigma honor society, The National Society of Leadership and Success
- Weaver and Sutherland Scholarship recipient
- Volunteer of the year (2012-2013) for the University Ambulance Service

Employment

Licensed Soccer Referee (2006-2010)

- Assured all soccer regulations were followed as mandated by FIFA (International Football Association)
- Worked with other referees make calls fairly

Intern at the Washington International Renewable Energy Conference (WIREC) 2007

- Assisted with event planning and assured materials were delivered to the proper location
- Monitored entrances to speeches
- Ushered conference attendees to the correct conference room

Salon Coordinator at Salon Moxi (2008-2010)

- Greeted clients and helped them prepare for their salon experience
- Made and confirmed appointments for all salon clientele

Sandwich artist at Capriotti's Sandwich Shop 2010

- Received customers' food orders
- Managed and assisted with food preparations
- Helped to clean the restaurant after closing

Nanny (Summer 2011, Summer 2012, 2013-present)

- Provided childcare to children of ages ranging from ten months to eleven years old while parents were working and away from the home
- Play games, assist with homework, and encourage healthy behaviors
- Prepare meals for the children and for the families

- Perform light housework around the house such as doing dishes, laundry, sweeping, vacuuming, and dusting

Emergency Medical Technician

(2013-present)

- Hired at The Pennsylvania State's University Ambulance Service after volunteering for a year
- Refer to relevant experience (University Ambulance Service) to see position requirements