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Our Early Years of Life's Effects on our Future Health and Well-Being

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Our Early Years of Life's Effects on our Future Health and Well-Being

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NURS 4500: Nursing Research and Senior Thesis

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Abstract

Many poor health outcomes later into adulthood have been triggered by adverse life events that have occurred during childhood. Most of the general population has experienced some sort of adverse childhood event that has negatively impacted their future health. Adverse childhood events include any traumatic event that has occurred during childhood including maltreatment (sexual abuse, mental abuse, and physical abuse), neglect, parental loss, and peer victimization.

Raising awareness regarding the opportunities to intervene in a child's life as a means to prevent behavioral, psychological, and substance abuse disorders before they would typically manifest on their own is the ultimate goal. As health care providers, it is imperative that the nursing profession offer profound resources to those affected by childhood trauma and be able to identify and intervene as early and as appropriately as possible with proper education and resources.

Based on a thorough literature review it is found that adverse childhood events can cause a variety of different health outcomes into adulthood. Some of these health outcomes in adulthood include mental illness (anxiety, depression, post-traumatic stress disorder, etc.), cardiovascular alterations (stroke and coronary artery disease), and drug abuse. The more adverse childhood events that occurred in a person's life, the more prevalence there was for poor diet, daily smoking, and heavier alcohol consumption. However, these negative outcomes decreased when there was a supportive adult present to consult with. With early and proper identification and intervention poorer health outcomes in adulthood can be avoided.

Adverse childhood experiences negatively impact the mental and physical health of an individual throughout their life. In order to mitigate this impact, education and intervention is required.

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Problem Statement

Many poor health outcomes later in adulthood can be triggered by adverse life events that have occurred during childhood. It is estimated that a third of the general population may be affected by adverse childhood events (ACEs) including trauma (Varese et al., 2012). Research has shown that “ACEs have a dose-response relationship with many health outcomes, including heart rate responses to stress and chronic health conditions such as coronary heart disease and stroke. In addition, ACEs are significantly associated with depression, insufficient sleep, and diabetes” (Chang et al., 2019). There are a growing number of studies that have examined child maltreatment (e.g., sexual abuse, physical abuse, emotional/psychological abuse, and neglect), peer victimization, and parental loss and separation as risk factors for psychosis and schizophrenia (Varese et al., 2012). According to current research, parenting approaches and ACEs are thought to be major causes of substance abuse initiation in addition to the various other effects. The National Institute on Drug Abuse says that substance use typically begins during adolescence in which “there are known biological, psychological, social, and environmental factors that contribute to the risk that begin accumulating as early as the prenatal period” (Mirlashari et al., 2020). Based upon this knowledge it is evident that there are opportunities to intervene early in an individual’s life as a means to prevent behavioral, psychological, and substance abuse disorders long before they would typically manifest on their own (Mirlashari et al., 2020). As health care providers, it is imperative that the nursing profession offer profound resources to those affected by childhood trauma and be able to identify and intervene as early and as appropriately as possible with proper education and resources.

Research Questions

What type of life events in childhood can cause the most severe health problems in adulthood?

What interventions in childhood can be implemented by nurses to help with early identification and prevention of potentially harmful outcomes later in life?

What interventions can be implemented by nurses to help with successful coping for those who experience childhood trauma or other negative life events?

Literature Review

Introduction

The purpose of this literature review is to explore previous research that has been conducted pertaining to the topic. When going through prior experimentation it is important to carefully identify where areas of improvement can occur while becoming educated on important background information on the topic of concern. The objective is to critique this research in an effort to formulate new research with minimal inadequacies. This literature review will address the following questions: 1) What type of life events in childhood can cause the most severe health problems in adulthood?, 2) What interventions in childhood can be implemented by nurses to help with early identification and prevention of potentially harmful outcomes later in life?, and 3) What interventions can be implemented by nurses to help with successful coping for those who experience childhood trauma or other negative life events? (See Appendix A)

Search Strategy

The literature review is composed of six research studies from Dominican University Library and National Library of Medicine. The keywords used to discover these articles were 'childhood trauma', 'addiction', 'health outcomes', 'patient education', 'stressors', 'coping', 'mental health', and many others. These seven articles were chosen based on how relevant they were to the subject of interest. The articles that will be discussed in the review can be further broken down into three categories: adverse childhood experiences, associated long term health outcomes, and early identification and impactful interventions. Some studies may fall in one or more categories; therefore, they were placed into the category in which was most logical based upon their review.

Category one: Adverse Childhood Experiences

Research composed by Varese et al. and Corso et. al., were grouped together under Adverse Childhood Experiences because they both discuss in detail the different types of trauma and experiences that can occur during childhood. They also identify the most prevalent childhood trauma and stressors that can ultimately lead to poorer health outcomes into adulthood.

Article 1: Health-Related Quality of Life Among Adults Who Experiences Maltreatment During Childhood

This article discusses the differences between the health of adults who reported childhood maltreatment and those who reported no maltreatment as a child. It explores the different type of childhood trauma and their associated effects later on into adulthood. Childhood maltreatment is defined as “any act or series of acts of commission or omission by a parent or other caregiver, in the context of a relationship of responsibility, trust, or power, that results in harm, potential for harm, or threat of harm to a child’s health, survival, development, or dignity” (Corso et. al.,2008).

The researchers gathered data from 2,812 adults who reported experiencing maltreatment at one point or another during their childhood and compared it to 3,356 people who claimed to never experience childhood maltreatment. Conducting a quantitative study allowed the researchers to use a 36-Item Short Form Health Survey to evaluate the various types of traumas experienced during the first 18 years of life called the Medical Outcome Survey. There were five categories of childhood maltreatment that were investigated: physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect. They also dedicated another five categories of questions to explore other adverse experiences during childhood: household

member in prison, household substance abuse, violent treatment of mother, household mental illness, and parental separation or divorce.

In addition to the type of childhood maltreatment that the person experienced the researchers also investigated how often it was inflicted upon them. The data revealed that approximately 26% of the participants experienced physical abuse, 21% experienced sexual abuse, 14% sustained emotional neglect, 10% emotional abuse, and 9% physical neglect. The article discovered that “Physical abuse, sexual abuse, and emotional neglect alone significantly reduced health related quality of life per year by 0.015, 0.016, and 0.026 quality-adjusted life years (QALYs), respectively; emotional abuse or physical neglect alone did not” (Corso et. al., 2008).

Article 2: Childhood Adversities Increase the Risk of Psychosis: A Meta-analysis of Patient-Control, Prospective- and Cross-sectional Cohort Studies

This study aimed to examine the association between childhood adversities and trauma to psychosis outcomes. The measure of childhood adversity and trauma were only considered eligible if they occurred before the age of 18 and was assessed at the individual level. It is estimated that nearly one-third of the general population may be affected by an adverse childhood event. The analysts identified child maltreatment as any sexual abuse, physical abuse, emotional/psychological abuse, and neglect. Maltreatment during childhood, peer victimization (e.g., bullying), and experiences of parental loss and separation were all identified as risk factors for various psychiatric disorders.

The types of traumas that were noted were “childhood sexual abuse (sexual acts toward a child, including intercourse, touching, etc.), childhood physical abuse (violent acts leading to

physical injury or harm, such as harsh physical punishment), childhood emotional abuse (exposure to behavior that might result in trauma, such as harshness, name calling by parents during childhood), childhood physical neglect (failure of those who are responsible for physical care to provide this care during childhood, e.g., by failing to provide food or clothes), childhood emotional neglect (failure of those who are responsible to provide emotional care during childhood, e.g., by being unresponsive to a child's emotional needs), and bullying (an act of repetitively aggressive behavior by a peer with the intention to hurt the child, such as physical assault or intimidation or repeated name calling)" (Varese et. al., 2012). In addition to these types of maltreatment, parental loss or separation was described as the death of one parent before the child turned 18 years of age.

The analysis revealed that specific traumas, with the exception of parental death, were related to the increased risk of psychosis. "The findings imply that exposure to adverse childhood events should be regarded as an important determinant of psychotic disorders" (Varese et. al., 2012). However, adversity is a heterogeneous concept which includes types of exposures that were not considered in this analysis. Childhood medical illness, exposure to war, natural disasters, and parental separation are other traumas that can further be investigated as creating negative health outcomes for one's future overall health and well-being.

Category two: Associated Long Term Health Outcomes

This category was created to discuss the different long term health outcomes associated with Adverse Childhood Experiences. Studies composed by Chang et. al., Sonu et. al., and Deschênes et. al. explain many of negative health outcomes that can be triggered by experiencing trauma and maltreatment during childhood. It is important to note that these health outcomes in

adulthood can precipitate by many other different experiences, yet childhood trauma is only a single risk factor for each of the following health outcomes that will be described in this section.

Article 1: Adverse Childhood Experiences and the Risk of Coronary Heart Disease in Adulthood: Examining Potential Psychological, Biological, and Behavioral Mediators in the Whitehall II Cohort Study

This prospective cohort study aimed to investigate the potential psychological, biological, and behavioral mediators and their association between adverse childhood experiences (ACEs) and the risk of coronary heart disease (CHD) in adulthood (Deschênes et. al., 2021). Since CHD is the leading cause of death world-wide the researcher's goal was to determine modifiable risk factors for this disease in an effort to prevent them if at all possible.

“Parental abuse and neglect, witnessing or experiencing violence in the household, parental substance abuse, household dysfunction, and being separated from parents,” have all been shown to increase the risk for CHD in adulthood (Deschênes et. al., 2021). The study also explains that even just observing such traumatic events increases the risk of poor health outcomes in adulthood in a dose-response manner. ACE's have been linked to increasing the likelihood of developing depression and anxiety which have also been identified as potentially modifiable/treatable risk factors to CHD. In addition to mental health disorders, ACE's increase the propensity for smoking, excessive alcohol use, and physical inactivity. These negative coping behaviors in turn are risk factors for CHD. The study also discusses cardiometabolic dysregulations such as “fasting glucose, triglyceride, cholesterol, and blood pressure levels,” which are important factors causing CHD (Deschênes et. al., 2021).

The study interviewed 10,308 British civil servants between the ages 35 and 55 years in 1985. Every two to three years data was collected by alternating between clinical examination

and questionnaire survey. The survey questions were intended to identify any ACEs before the age of 16. Each positive response was added together to determine the ACE score for each individual. There was a 30 question General Health Questionnaire which was used to assess symptoms of anxiety and depression. Cardiometabolic dysregulations were assessed clinically to determine glucose levels, triglycerides levels, cholesterol, and blood pressure readings. The data was then organized and reviewed to determine correlation between ACEs and CHD.

The study found that “each single ACE increase was associated with 9% higher odds of CHD” (Deschênes et. al., 2021). “Overall, retrospectively reported ACEs were associated with higher levels of depression and anxiety symptoms, alcohol dependence, and smoking. Higher levels of depression and anxiety symptoms, as well as smoking and a greater number of cardiometabolic dysregulations, were associated with incident CHD” (Deschênes et. al., 2021). During sensitive developmental periods such as childhood and adolescence, stressors such as ACEs can induce important biological changes that might create potential long-term consequences for health. Although some “biological responses to childhood stress may be adaptive in the short term...the long-term and cumulative impact of several ACEs may lead to chronic dysregulations in allostatic systems such as endocrine, metabolic, immune, and nervous systems, producing a greater physiological ‘wear and tears,’ which in turn can impact mental and physical health” (Deschênes et. al., 2021). Therefore, there must be increased efforts in minimizing the exposure to ACEs in the pediatric populations.

Article 2: Adverse Childhood Experiences and the Onset of Chronic Disease in Young Adulthood

This study analyzed data from the 2011 to 2012 Behavioral Risk Factor Surveillance System (BRFSS). There were 86,968 respondents that represented nine different state

populations. The purpose of this study was to examine the association of adverse childhood experiences (ACEs) with early-onset chronic conditions such as depression, poor mental and physical health, and chronic disease. “Subsequent reports, in addition to the original ACEs Study, found that a higher burden of ACEs was associated with a higher risk of many adverse health, behavioral, psychological, and social outcomes, including smoking, heavy alcohol consumption, substance use, high-risk sexual behavior, mental health problems (depression, anxiety, suicidality, hallucinations), and chronic disease (ischemic heart disease, cancer, lung disease, diabetes, chronic headaches, HIV, liver disease, and autoimmune disorders)” (Sonu et. al., 2019).

Data was organized into three different groups based upon age: 18-34, 35-54, and greater than 55 years old at the time of the interview. Questions were framed to identify physical, emotional, and sexual abuse; substance use, mental illness, or incarceration of a household member; domestic violence, and parental separation. Each ACE that was experienced by a participant was tallied to determine the number of ACEs one dealt with during childhood.

“Childhood adversity contributes to chronic conditions and disability via two interrelated pathways: (1) dysregulation of centrally mediated stress-response processes, potentially leading to a state of persistent low-grade inflammation; and (2) promoting behaviors such as impulsivity, poor social ties, and future discounting, which stem from structural and neurodevelopmental changes in the brain and in turn promote adoption of health-risk behaviors” (Sonu et. al., 2012). Repetitive exposure to stressors during such a critical period of development produces a wear and tear effect on the body and increases the risk for a number of future chronic conditions.

The study found that the more ACEs experienced the more likely the individual would develop multiple chronic conditions in adulthood. “Chronic diseases are well-known to decrease

quality of life in several ways, including: additional complications or comorbidities that arise over time (e.g. congestive heart failure from prolonged history of hypertension); disabilities and physical activity limitations that impact other domains beyond health (e.g. employment, leisurely activities); and the plethora of economic costs associated with management of chronic conditions (e.g. medications, procedures, physician or hospital visits)” (Sonu et. al., 2012). Based on the information presented, health care systems and providers should consider expanding their services, adopting trauma-informed practice, and engaging in collaboration for mitigating the long-term effects of childhood adversity.

Article 3: Associations Between Adverse Childhood Experiences and Health Outcomes in Adults Aged 18-59 years

This cross-sectional study examined the relationship between ACEs and health-related behaviors, chronic diseases, and mental health in 1,501 adults in China using an ACE International Questionnaire (ACE-IQ). The ACEs that were investigated included psychological, physical, and sexual forms of abuse, as well as household dysfunction. The study was performed on adults 18-59 years of age.

Complete demographic information was recorded for each survey participant to compose more accurate data. ACE scores were recorded based on the answers for each question asked during the interview. The questions were categorized according to the type of trauma that was encountered before the age of 18. Areas of investigation included abuse (physical, emotional, and sexual), neglect, family dysfunction, peer violence, witnessing community violence, and exposure to violence. Alcohol use and substance use was also explored to determine the habits that may have developed based upon the various experiences that took place in childhood.

The study found that individuals who reported emotional abuse during childhood had an increased risk of depression and PTSD in adulthood compared to those who did not suffer from emotional abuse. “Physical abuse during childhood was significantly related to adult smoking, chronic disease, and poor mental health. Domestic violence, community violence, and sexual abuse during childhood was significantly associated with an increased risk of PTSD in adulthood, which is consistent with previous studies. Abuse and neglect have a deleterious impact on the emergent attachment system and can lead to emotional dysregulation and an increase in cortisol levels” (Chang et. al., 2019). It was also evident that being bullied, family drug use, and physical abuse impacted the prevalence of chronic disease in adulthood. Based on the information provided by the participants different ACE components had a different long-term effect on the future health and well-being.

Category three: Early Identification and Impactful Interventions

This category was created to discuss the impactful interventions utilized to help manage the effects of trauma and maltreatment during childhood. Mirlashari et. al. and Bellis et. al. examine possible interventions that may be beneficial when implemented at an early age to avoid the negative effects of the experienced trauma.

Article 1: Addiction, Childhood Experiences and Nurse's Role in Prevention: A Qualitative Study

This study investigates the nurse's role in the prevention of childhood substance abuse. This qualitative study conducted in-depth interviews with both young men and women who are currently in treatment for addiction or who are actively using drugs. In addition, nurses and family members were also interviewed to discover their point of views on the issue at hand.

Substance abuse and addiction are preventable disorders that interfere with normal functioning and contribute to health problems that could be otherwise avoided. “The transition period from mid to late adolescence into early adulthood is identified as a high-risk period for drug use” (Mirlashari et. al., 2020).

There are reports that identify genetic and social factors, family relationships and poor parenting practices as etiological reasons that contribute to initiation of drug use. “While substance use generally begins during the adolescent years, there are known biological, psychological, social and environment factors that contribute to the risk that begin accumulating as early as the prenatal period” (Mirlashari et. al., 2020). With that being said, it is evident that there are many opportunities to intervene in a child’s life to prevent substance abuse disorders and behavioral problems before they may normally manifest.

Face to face interviews were conducted to properly gather important data given by the interviewee for identification of effective interventions to substance use and addiction. The participants that were chosen for this study were men and women 18-35 years of age. It is apparent that drug addiction does not occur overnight, therefore, it was important for the researchers to initiate conversation about their childhood experiences, relationships with their families, and their knowledge and experience with using drugs. Moreover, the participants were encouraged to talk about their experiences with preventative health programs and training programs that they undertook during childhood regarding drugs. Nurses were asked about their experience on prevention of drug addiction for the childhood population.

The study found that traumatic events during childhood was a similar experience for the majority of the participants that kickstarted their problem with drug addiction. These traumatic events included physical, sexual, emotional abuse, exposure to parental violence in early

childhood, and other family breakdown or parental addiction. Inappropriate parenting approaches was another major theme identified during the interviews. Many of the participants explained that their parents had high expectations for them during childhood which were not realistic to achieve and ultimately put immense pressure on the individual during a crucial developmental period of their life. It was also found that inappropriate punishment, lack of available information about drug use and a lack of understanding between parents and children were also common stressors leading to drug abuse. Furthermore, the study discovered that the participants never experienced any kind of training program related to the prevention of drug use. They said, "it was like society has turned a blind eye to threat of drug use among youth" (Mirlashari et. al., 2020).

The first theme that was noted based on the interview of nurses was "low experience about drug prevention" (Mirlashari et. al., 2020). There is a disconnect between nurses and prevention of drug addiction programs in their curriculum. "The second theme was the 'lack of a clear definition of nurses' role in prevention of drug use'" (Mirlashari et. al., 2020). There is a lack of school nurses in our country and these nurses could have a great role in the early recognition and prevention of deviation among kids. Researchers found that, "Nurses have a pivotal role in child protection and prevention of child abuse and neglect. Advanced practice nurses and those who work in primary care and community resource setting can provide health assessments for susceptible families and recognize risk factors for potential child abuse and neglect" (Mirlashari et. al., 2020). Nurses should be trained to focus their assessment on the prediction of potential abuse rather than recognizing abuse after it has already occurred.

Parenting dynamics are shown to have an immense impact on their children's behavior. Most of the participants who dealt with drug abuse came from dysfunctional and broken homes

putting them at greater risk for poorer health outcomes into adulthood. There is a lack of supervision and protection in these homes endangering youth because of little to no guidance and education from important role models in their lives. It is important to note that the study found “that the major obstacles to providing support and timely interventions for at-risk families and individuals include a lack of time and skills, short appointments, and long waiting lists for consultations. In fact, some families have learnt that problems must be really critical before they seek support” (Mirlashari et. al., 2020). The findings suggest the potential contribution nurses can offer to children who are at risk of developing substance use problems with the proper education and assessment.

Article 2: Does Continuous Trusted Adult Support in Childhood Impact Life-course Resilience Against Adverse Childhood Experiences- A Retrospective Study on Adult Health-Harming Behaviors and Mental Well-Being

This research article discusses the impact of support from a trusted adult during childhood when dealing with adverse childhood experiences. Face-to-face surveys for 18 to 69 years old examined ACEs suffered, a trustworthy, always available adult (AAA), current diet, smoking and alcohol consumption, and mental well-being in four different UK regions.

The study mentioned that ACEs are strongly associated with adopting health-harming behaviors (HHBs) in adolescence and adulthood. Some of these HHBs include smoking, heavy alcohol consumption, drug use and high calorie, low nutrients diets. “Recent studies have shown that ACEs can alter early brain development including pleasure and reward centres and can compromise the role of the pre-frontal cortex in impulse control” (Bellis et. al., 2017). There are some children who are able to avoid the negative health and social outcomes that can come from

stressful events. These children are termed resilient which is described as “an individual’s ability to transform potentially toxic stress and consequently reduce the harmful physiological and psychological impacts of such stressors occurring during childhood development” (Bellis et. al., 2017). Emerging intelligence, strong cultural traditions, developed self-regulation skills, and sense of personal control have been associated with resilience during childhood. In addition, having a supportive adult present throughout childhood has been associated with lower levels of HHBs.

Adverse childhood experiences negatively impact multiple areas of health and well-being across the lifespan. With proper support provided to those experiencing hardships during childhood the outcomes of negative health problems can be mitigated according to this research conducted in 2017.

Overall Discussion of Literature Review

Overall, the research available regarding adverse childhood experiences and future health is abundant. There have been several studies conducted to identify the types of adverse childhood events and trauma that have the most impact on the future health and well-being of these individuals. There are also a number of studies that discuss the types of health outcomes seen in adulthood who experienced hardship throughout childhood. The articles that were discussed in this literature review contributed to a greater understanding of the types of adverse experiences, their risks, and possible interventions that may be beneficial to mitigate poorer health outcomes.

Each article had limitations of their own. Articles by Corso et. al., Varese et. al., Sonu et. al., Chang et. al, and Deschênes et. al., were all quantitative studies that perhaps limited the amount of information from each interviewee by minimizing their responses to each question

that was asked per the survey. The qualitative studies by Bellis et. al. and Mirlashari et. al. conducted qualitative studies allowing the participants to disclose as openly as desired the types of experiences they endured during childhood. These studies made it possible for the researchers to discover more possibilities and correlations between adverse events and future health. The seven studies all utilized appropriate sample sizes and collected pertinent data to bring light to new discoveries within this health concern.

Overall, most of the articles displayed great information. They incorporated large sample sizes and collected data in an organized and easy to understand manner. They were all able to follow through with their research studies and ultimately bring light to valuable information to guide future research pertaining to this topic.

Proposal For Further Study

It is evident that information was gained during the literature review that answered many of the questions proposed in the research. However, there are also apparent gaps in the research that should be addressed. The availability of a support person throughout childhood is associated with fewer poor health outcomes in adulthood. Therefore, a study is proposed to determine the qualifications, characteristics, and relationship of support people that would be of increased benefit to the child experiencing adverse life events. This is especially important during a critical period of development to mitigate the occurrence of negative health outcomes in adulthood. The main research questions is:

- What makes a support person effective for a child who has experienced adverse childhood experiences to mitigate negative health outcomes in the future?

Theoretical Framework

The theoretical framework that correlates best with this research topic is that of Phil Barker. Phil Barker's theory of Tidal Model emphasizes that what works for one person pertaining to their care may not work for another person (Petiprin, 2020). The purpose of this model is to guide nurses in caring for patients faced with mental illness. This model views health and illness as fluid, however, it views life as a journey that can become "shipwrecked". "Barkers model includes six philosophical assumptions: a belief in the virtue of curiosity; recognition of the power of resourcefulness; respect for the patient's wishes; acceptance of the paradox of crisis as opportunity; acknowledging that all goals must belong to the patient; and the virtue of pursuing elegance, which means the simplest possible means should be sought" (Petiprin, 2020). The patient must accept that recovery is possible, change is inevitable, and become aware of the

fact that they have all the resources that are needed to overcome the journey. The Tidal Model uses a unique and specific way for interviewing patients. It reveals hidden meanings, the patient's resources and discovers what needs to be done to help with his or her recovery (Petiprin, 2020). This theory can be applied to this research because mental health is critical to the recovery of those who have experienced traumatic childhood events. The techniques used for the Tidal Model are critical to the interviewing process for this research proposal. The goal is to determine what the participants stories reveal and determines the resources and support available to each participant to overcome these tragedies and establish a healthier future. It is the role of mental health nurses to establish rapport and trust with their patients in order to identify unique and impactful interventions beneficial to each participant.

Primary Research Aims

The primary research aim for this proposed qualitative study is to explore the perceptions of people who experienced childhood trauma and had a supportive person during that time. Another aim is to determine the characteristics, qualifications, and relationship status that make a support person more effective in guiding a person to a healthier future after experiencing childhood trauma. Other aims to this study are to identify what kind of support is most effective, depending on the type of adverse childhood event that was experienced.

Research Method

Research Design

The design of the proposed research study will be carried out as a qualitative study utilizing numerous face-to-face interviews to collect data.

Sample Size

A total of 10 participants will be recruited in various locations of California to be included in the study. The criteria to be used are as follows: between the ages of 18 and 65 years old, residing in California, experienced at least two adverse events during childhood, and had a support person during childhood who was actively involved in the participants life during or after the adverse events occurred. There will not be any limitations on nationality and gender.

Ethical Considerations

Each participant will be provided with informed consent prior to the research study being conducted. There are a few considerations to be noted to legitimize this research study. First, the population to be studied could be considered vulnerable. Therefore, every effort will be made to ensure their privacy and safety. Next, participation in the study should be completely voluntary and the participants will have the ability to leave the study whenever they want. Patient identification will remain confidential. This will allow for the participants to feel comfortable about disclosing personal information pertaining to their experiences as a child. Finally, the study will be submitted to an Internal Review Board for examination of ethical concerns and data collection will not begin until after approval is received.

Strategy for Recruitment

This study is aimed to work with individuals who have suffered traumatic experiences during childhood and had a support person available throughout those experiences. The strategies used for the recruitment of the participants will be through purposive sampling. The researchers will utilize their expertise to select the sample that is most useful for the purpose of the research. This will allow the researchers to collect the necessary information in order to formulate the most accurate data. The researchers include health care workers that are experienced in mental health medicine.

Methodology

This study will utilize a qualitative approach after obtaining demographic and baseline information. The purposive sampling method will be used to recruit participants for the study. Specifically, the snowballing method will be utilized on social media to gather participants. A set of open-ended questions will be asked to each participant to begin the interview however, as the interview progresses these open-ended questions will then be individualized based upon the experiences of the participant.

Demographic information will be:

- Age
- Ethnicity
- Gender
- Occupation

Background information will be:

- How many adverse childhood events did you experience before the age of 18?
- How old were you when you experienced the traumatic event?
- What was/is the relationship of your support person to you?
- How old was your support person?
- What kind of credentials (if any) did your support person have?
- How long was your relationship with your support person before the event?
- How long did your support person aid you in dealing with the event?

The following open-ended questions will be asked:

- What kind of adverse childhood event did you experience?
- What did that situation feel like?

- How did your support person help you during the difficult time?
- How effective was your support person during this critical time?
- How long was your relationship with your support person before the event?
- What is your health like today?
- Are there any chronic health problems that you have been dealing with since you've experienced the traumatic event?
- Please describe qualities that your support person had that you feel were beneficial for you.

Once a baseline is assessed open-ended questions will be adjusted based off the specific experiences of the particular participant during that time to gain further critical information pertaining to the interviewee.

Data Analysis

Demographics and background information will be assessed using descriptive statistics. The qualitative questions in the study will be analyzed using content analysis. The responses from each participant will be categorized based upon their feedback during their interview to differentiate between similarities and differences. Qualities of their support person will be grouped together to determine the most effective traits to minimize future health problems. To accomplish this, similar words and phrases will be identified from each interview to distinguish common themes amongst the participants.

Conclusion

The proposed research questions were answered from conducting the literature review. There were multiple childhood traumatic events and stressors identified as leading to poorer health outcomes into adulthood. Childhood maltreatment including physical, mental, and

emotional abuse, and neglect were associated stressors that negatively impacted the individual's future health. In addition, peer victimization, experiences of parental loss, household substance abuse, household mental abuse, household member in prison, and violent treatment of a mother were also found to be risk factors leading to poorer health outcomes. Health problems that were most prevalent to those experiencing childhood adverse events included high risk behaviors such as smoking, heavy alcohol consumption, and higher-risk sexual behavior; mental health problems including depression, PTSD, and suicide; and chronic diseases such as coronary heart disease, cancer, diabetes, chronic headaches, HIV, among many others. In spite of that, the most effective intervention for a child during their critical period of development is to have an always available support person to provide guidance if adverse events should occur.

The findings identified in this thesis can be applied to clinical practice. The likelihood a child who has experienced an adverse event to have poorer health outcomes into adulthood is high. Therefore, with this knowledge health care professionals can identify these risk factors and provide interventions and treatment to those in need before allowing them to manifest into greater health problems.

Although an abundance of information was gathered throughout the literature review a new question came to the surface: What makes a support person effective for a child who has experienced adverse childhood experiences to mitigate negative health outcomes in the future? This research can be beneficial to health care providers and other professionals working with children to guide them to searching for the right support person. There is still much to be learned regarding this topic, however, identification and awareness is a step in the right direction to mitigate modifiable risk factors pertaining to chronic disease and mental illness.

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Authors/Citation	Purpose/Objective of Study	Sample - Population of interest, sample size	Study Design	Study Methods	Major Finding(s)	Strengths	Limitations
<p>Phaedra S. Corso, Valerie J. Edwards, Xiangming Fang, and James A. Mercy (2008): Health-Related Quality of Life Among Adults Who Experienced Maltreatment During Childhood American Journal of Public Health 98, 1094_1100, https://doi.org/10.2105/AJPH.2007.119826 (Corso et. al., 2008)</p>	<p>To assess the difference in a preference-based measure of health among adults reporting maltreatment as a child versus those reporting no maltreatment.</p>	<p>The population were adults who reported childhood maltreatment (n=2812) and those who reported no childhood maltreatment (n=3356).</p>	<p>Quantitative, correlational survey</p>	<p>Propensity score methods were used to compare the 2 groups. Basic demographic information was collected from participants. There are 5 categories of child maltreatment including physical, sexual, emotional abuse, physical neglect, and emotional neglect. There were five other categories for the adverse events that were experienced during childhood these include household substance abuse, household mental illness, violent treatment of mother, household member in prison, and parental separation or divorce. The main outcome of interest for this study was a preference-based health-related</p>	<p>It was found that those who experienced some sort of maltreatment during their childhood had significant losses related to their health into adulthood. Physical abuse, sexual abuse, and emotional neglect were significant in and of themselves. They reduced health related quality of life significantly.</p>	<p>This study incorporates many participants and uses many techniques in order to analyze the data. There were also multiple tables to clearly organize the data that was found.</p>	<p>This study limited the questions that were asked to each participant. There were not open-ended questions which does not allow the participant to be able to truly express themselves. The study does not clarify the age group of the participants or include their demographic information. This study also does not mention if an informed consent was used before it was conducted.</p>

Authors/Citation	Purpose/Objective of Study	Sample - Population of interest, sample size	Study Design	Study Methods	Major Finding(s)	Strengths	Limitations
				quality of life measure, or utility for 2 populations- adults who self-reported childhood maltreatment during the first 18 years of life and those who did not report maltreatment during childhood.			
Filippo Varese, Feikje Smeets, Marjan Drukker, Ritsaert Lieverse, Tineke Lataster, Wolfgang Viechtbauer, John Read, Jim van Os, Richard P. Bentall, Childhood Adversities Increase the Risk of Psychosis: A Meta-analysis of Patient-Control, Prospective- and Cross-sectional Cohort	Examine the magnitude and consistency of the effects of different, widely-examine types of adversity and trauma observed in prospective cohort studies, large population-based cross-sectional studies, and case-control studies.	There were n=2048 psychotic patients and 1856 nonpsychiatric controls. 10 prospective and quasi-prospective studies (n=41,803), and 8 population-based cross-sectional studies (n=35,546).	Prospective and cross-sectional cohort studies. Quantitative review and meta-analysis of the available literature.	Followed the meta-analysis of Observational Studies in Epidemiology guidelines. There was an analysis of specifically childhood trauma. Appropriate steps were taken to identify all relevant studies and reduce file drawer effects. Only reports after January 1980 were Included.	Childhood adversity and trauma substantially increases the risk of psychosis. Review found that, with the exception of parental death, all types of adversity were related to an increased risk of psychosis, indicating that exposure to adverse experiences in general increase the risk of psychosis, regardless of the exact exposure.	Many articles were reviewed when compiling information for this study. Charts were implemented in the discussion section to assist with the portrayal of information. Discusses multiple adverse childhood traumas.	This analysis covers data that was taken over many years. There are no specific information about the participants demographics.

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<p>Studies, <i>Schizophrenia Bulletin</i>, Volume 38, Issue 4, 18 June 2012, Pages 661–671, https://doi.org/10.1093/schbul/sbs050 (Varese et. al., 2012)</p>							
<p>Bellis, M. A., Hardcastle, K., Ford, K., Hughes, K., Ashton, K., Quigg, Z., & Butler, N. (2017). Does continuous trusted adult support in childhood impart life-course resilience against adverse childhood experiences - a retrospective study on adult health-harming behaviors and mental well-being. <i>BMC psychiatry</i>, 17(1), 110. https://doi.org/10.1186/s12888-017-1260-z (Bellis et. al., 2017)</p>	<p>To test if access to a trusted adult in childhood is associated with reduced impact of adverse childhood events on adoption of health harming behaviors and lower mental well-being in adults.</p>	<p>There were n=7.047 participants. The participants ages ranged from 18-69 years old.</p>	<p>Cross-sectional, quantitative, face-to-face household surveys examining adverse childhood experiences and a trusting, supportive adult.</p>	<p>A survey was done for the Residents in Wales between February and May of 2015 and then repeated in three other areas between June and September 2015. There were 9 categories of ACEs.. The participants were categorized into having 0, 1, 2-3, or 4 or more ACE categories. Three health harming behaviors were measure such as smoking, poor diet, and heavy drinking. 11 questions were asked to measure the exposure to childhood</p>	<p>The more adverse childhood events that occurred the more prevalence there was for poor diet, daily smoking, and heavier alcohol consumption but it decreased with having a support person available. When there was lack of support and multiple ACEs mental health declined substantially. ACEs negatively impact both mental and physical health. If a child has someone they trust in their life then this can help the</p>	<p>This study used a wide range of ages. There were multiple things being assessed in this study. Not only was the negative effects of adverse childhood events addressed but there was an intervention to promote resilience and minimize the risk of poor health outcomes later in life. This study also followed the correct criteria for an informed consent.</p>	<p>The limitation to this study was the specific geographical location of each of the participants. There also wasn’t much room for the participants to speak freely about their experiences with their childhood events. Only one intervention was mentioned and tested.</p>

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				<p>adverse events and family dysfunction before the age of 18. The Short Warwick-Edinburgh Mental Well-Being Scale was used to measure how the individuals were feeling over the past two weeks.</p>	<p>child to overcome these adversities.</p>		
<p>Sonu, S., Post, S., & Feinglass, J. (2019). Adverse childhood experiences and the onset of chronic disease in young adulthood. <i>Preventive medicine, 123</i>, 163-170. https://doi.org/10.1016/j.ypmed.2019.03.032 (Sonu et. al.,2019)</p>	<p>To look at the association between adverse childhood experiences (ACEs) and early-onset chronic conditions. Patterns were analyzed to identify the association between ACEs and adult health disaggregated by age. The study also aims to investigate the extent to which childhood adversities affect prevalence of self-reported chronic conditions and worsen quality of life related to</p>	<p>This study analyzed data from 2011-2012 Behavioral Risk Factor Surveillance System. This data included information from 86,969 respondents who represented a nine-state adult population of 32 million people.</p>	<p>Cross-sectional, quantitative analysis for the Center for Disease Control Behavioral Risk Factor Surveillance System.</p>	<p>This was a telephone interview survey from nine states that used the 8-item ACEs questionnaire. The study split the participants into three different groups based off age. Those who were between 18 and 34 years old, 35 to 54 years old, and those who were older than 55. The questionnaire focused on eight stressors throughout childhood. Questions aimed to identify physical abuse, emotional neglect,</p>	<p>The prevalence of multiple household stressors such as mental illness, illegal substance use, parental separation, and incarcerated household members was the highest in the 18–34-year old’s. In the middle-aged adult’s category (35–44-year old’s) physical, verbal, and sexual abuse were the highest. The study found that 4 or more ACEs is associated with a higher risk of multiple chronic</p>	<p>This study included a large number of participants from a large age range.</p>	<p>The study did not account for any other demographic information as far as more risk factors for chronic health conditions such as smoking and obesity. This study also does not mention an informed consent or talk about the privacy of the participants.</p>

Authors/Citation	Purpose/Objective of Study	Sample - Population of interest, sample size	Study Design	Study Methods	Major Finding(s)	Strengths	Limitations
	health into young adulthood.			verbal abuse, sexual abuse, substance abuse, and mental illness. Other questions were asked to determine any incarcerated household members, domestic violence, and parental separation as well. The cumulative ACE score ranged from 0 to 8 and scores of 4 or more indicated highest exposure. The next category of questions had to do with chronic conditions and health related outcomes.	conditions and poorer self-reported general health.		
Chang, X., Jiang, X., Mkandarwire, T., & Shen, M. (2019). Associations between adverse childhood experiences and health outcomes in adults aged 18-59 years. <i>PLoS one</i> , 14(2), e0211850.	To examine the relationship between adverse childhood experiences and health-related behaviors, chronic diseases, and mental health in adults. The primary objective of the study was to look	The baseline sample was adults aged 18-59 years from 13 collective rural communities. The participants were selected from three communities using random cluster sampling. The three	A cross-sectional study was carried out in Macheng city, Hubei province, China, in May 2014. First, 13 communities were listed according to their distance from the main county urban area. Then, they	The participants were given an anonymous, self-administered questionnaire conducted by trained investigators and facilitated by staff by staff of Macheng Center for Disease Prevention and	Adverse childhood events were significantly associated with risk behaviors and poor health outcomes in adulthood, and different adverse childhood events components had different long-term	The study included a wide range of ages within adulthood. It looked at specific adverse childhood events and their relationship to high-risk behaviors in adulthood. The study also was done is a	The study did not include possible interventions that could be implemented to decrease the risk of high-risk behavior and poor health in adulthood. The study also did not assess the ages at which the high-

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<p>https://doi.org/10.1371/journal.pone.0211850 (Chang, et. al., 2019)</p>	<p>at the relationships between individual ACE components and high-risk health behaviors in adulthood in China.</p>	<p>communities that took part in the survey were from Drum Tower Community, Longchi Community, and South Lake Community. The sample size was a total of n=1339 adults.</p>	<p>randomly selected three communities near the downtown areas to take part in the survey.</p>	<p>Control. The ACE International Questionnaire (ACE-IQ) was used to assess ACEs, including psychological, physical, and sexual forms of abuse, as well as household dysfunction. Multiple logistic regression models were used to examine the associations between overall ACE score and individual ACE component scores and risk behaviors/comorbidi- ties in adulthood after controlling for potential cofounders.</p>	<p>effects on health outcomes in adulthood. The main outcome variables were lifetime drinking status, lifetime smoking status, chronic disease, depression, and posttraumatic stress disorder. Men and lower-income participants had a higher prevalence of ACEs than women and higher-income participants. Experience of ACEs was associated with depression and PTSD in adulthood. As the ACE score increased, the risk odds for PTSD, chronic disease, depression, and smoking and drinking behavior during adulthood significantly increased.</p>	<p>middle-income country, therefore the results were based off individuals with different socioeconomic and demographic background other than that of the high-income countries.</p>	<p>risk behaviors and poor health began.</p>

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<p>Mirlashari, J., Jahanbani, J., & Begjani, J. (2020). Addiction, childhood experiences and nurse's role in prevention: a qualitative study. <i>Eastern Mediterranean health journal = La revue de sante de la Mediterranee orientale = al-Majallah al-sihhiyah li-sharq al-mutawassit</i>, 26(2), 212–218. https://doi.org/10.26719/2020.26.2.212</p> <p>(Mirlashari, et. al., 2020)</p>	<p>To explore the nurse’s role in the prevention of childhood addiction in Tehran. Attempted to draw attention to the potential contribution that nurses make in addressing major public health problems like addiction in countries by building on the results of a qualitative inquiry that explored the early childhood experiences of young drug users.</p>	<p>44 individual in-depth interviews. The participants were addicted men and women ages 18-35 years old. Twenty interviews were conducted with drug-dependent young people (10 male, 10 female). Fifteen of these participants were in treatment for their opiate addiction and the rest were actively using as the time. Four interviews were conducted with family members of the participants and 20 interviews were conducted with nurses.</p>	<p>A qualitative method was used for this study because of their capacity to explore human behaviors, this method was well-suited to demystifying the facts about drug use with more accurate information that reflects the daily experiences of substance users’ lives. Snowball sampling was also utilized.</p>	<p>Participants were recruited purposefully with the help of staff from medical treatment centers and nongovernmental organizations that help addicts. The interviews lasted between 30 minutes and 150 minutes over 1-2 sessions. There were face-to -face, semi-structured interviews were held with participants. The interview questions were open-ended to allow participants to thoroughly describe their opinions, perceptions, and experiences on the nurse’s involvement in prevention of addiction. They were asked about childhood experiences, their relationship with their families, when and</p>	<p>Traumatic events during childhood were a shared experience for the majority of participants, and included physical, sexual, and emotional abuse, exposure to parental violence in early childhood, and other family problems such as family breakdown and parental addiction. Inappropriate parenting approach such as disconnection between parents and their child, living in 2 different worlds, parents’ high expectations for their children and inappropriate punishment was all part of another major theme associated with drug addiction. Lack of knowledge and tolerant attitude</p>	<p>Participants were asked to agree with to the recording of their interviews and the anonymous use of information. In order to comply with research ethics, an informed consent form was completed by all participants. They all agreed to the anonymous use of information by the research team. Audio tapes were deleted after the end of the study. Participants were also able to withdraw from the study at any time. The interviews that were conducted allowed participants to speak freely when using open-ended questions as to not limit the amount of information given. Getting the nurses perspective on</p>	<p>There were only 44 participants included in this study. The age group could have been widened to older than 35 years of age. The study did not give any information on possible nursing interventions and identification of drug abuse rather than more education within that field. The study also does not discuss the type of drugs the participants struggled with using or how the drugs made them feel.</p>

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				<p>how they came to know about drugs, their first drug use experience and the conditions and the environment in which it took place. They were also encouraged to talk about the probable training and preventive health programs they undertook during their childhood periods regarding drugs and drug use.</p>	<p>toward drug use was frequently mentioned by participants. Based on the interviews, none of the participants had experienced any type of training programs related to the prevention of drug use. As far as nurses and drug use prevention it was found that there was no training program regarding the prevention of addiction in their curriculum. There was also not a clear role for the nurse in the prevention of drug use.</p>	<p>the issue was also insightful and critical to this study.</p>	
<p>Deschênes, S. S., Kivimaki, M., & Schmitz, N. (2021). Adverse Childhood Experiences and the Risk of Coronary Heart Disease in Adulthood:</p>	<p>Investigated potential psycho-bio-behavioral mediators of the association between adverse childhood experiences (ACEs) and the risk of coronary</p>	<p>The sample size of the study was N=5610 participants. 540 people with prevalent CHD at or before wave 5 were excluded.</p>	<p>Cohort study of British civil servants aged 35 to 55 years when they began the survey in 1985. Data collection has occurred every 2 to 3 years since,</p>	<p>ACEs were assessed with a series of questions. Responses were “yes” or “no” and positive responses were summed to create a continuous</p>	<p>It was found that ACE category most frequently endorsed was parental arguments. Each single ACE increase was associated with 9%</p>	<p>A large cohort was used in this study. The study employed a multidimensional approach to examining potential pathways linking ACEs with CHD.</p>	<p>The study focuses on working-age adults at baseline and is predominantly men and white race/ethnicity. The sample limits</p>

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<p>Examining Potential Psychological, Biological, and Behavioral Mediators in the Whitehall II Cohort Study. <i>Journal of the American Heart Association</i>, 10(10), e019013. https://doi.org/10.1161/JAHA.120.019013 (Deshchênes, et. al., 2021)</p>	<p>heart disease (CHD) in adulthood. Examined potential psychological (depression and anxiety), behavioral (smoking, alcohol dependence, sleep, and physical activity), and cardiometabolic pathways linking ACEs and coronary heart disease with a prospective cohort study.</p>		<p>alternating between clinical examination and questionnaire survey. The present study Wave 5 (1997-1999) served as the study baseline given that ACEs were retrospectively assessed, and current depression and anxiety symptoms, health behaviors, and cardiometabolic dysregulations were assessed. Incident CHD was assessed from wave 6 (2001) to wave 11 (2012-2013).</p>	<p>ACEs score ranging from 0 to 8. Depression and anxiety symptoms were assessed using subsets of items from the 30-item General Health Questionnaire. The General Health Questionnaire assesses general mental health status, with a 5-item subscale assessing anxiety symptoms and 4-item subscale that assesses depressive symptoms, experienced within the past week, on a rating scale from 0 to 3. Scores on the subscales can range from 0 to 12 with higher scores reflecting greater symptom severity.. Cardiometabolic dysregulations were assessed by clinical examination and were</p>	<p>higher odds of CHD. Retrospectively reported ACEs were associated with higher levels of depression and anxiety symptoms, alcohol dependence, and smoking. Higher levels of depression and anxiety symptoms, as well as smoking and a greater number of cardiometabolic dysregulations, were associated with incident CHD.</p>		<p>generalizability to older adults, women, and other races/ethnicities. The study was also not detailed and did not include multiple periods of time for specific symptoms felt by the participants.</p>

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				based on the criteria for metabolic syndrome and systemic inflammation. CHD was objectively assessed using clinical assessments and medical records.			