EFFECTS OF CHILDHOOD MALTREATMENT ON EXECUTIVE FUNCTION
IN ADOLESCENTS AND YOUNG ADULTS 11 TO 24 YEARS OF AGE

By
Jennifer O Douglas

A manuscript submitted in partial fulfillment of the requirements for the degree of:
MASTER OF NURSING

WASHINGTON STATE UNIVERSITY SPOKANE
College of Nursing
JUNE 2012
To the faculty of Washington State University:

The members of the committee appointed to examine the clinical project by JENNIFER O. DOUGLAS find it satisfactory and recommend that it be accepted.

Mel Haberman, PhD, RN, FAAN, Chair

Merry Armstrong, DNSc, ARNP, BC

Susan Fleming, PhD, RN
ACKNOWLEDGMENT

My first and foremost gratitude is to the fascinating people who so graciously opened their hearts and gave me the privilege of learning. I sincerely appreciate the learning experiences that I have had as others have shared their stories about their lives with me. I am truly grateful for the learning experiences that led me to achieve my goal.

I would like to thank my children. I am grateful to Annie for helping me maintain focus and perseverance during this research project, as well as Christine and Sam for helping me to maintain a balance in my life amidst the work. I appreciate my husband, Steve, for encouraging me to continue in my education. They all have sacrificed many hours of their time to support me through this endeavor. I want to acknowledge and give thanks to my long-time mentor, Becky Cardell, for being a role model, as well as inspiring me to become a psychiatric nurse practitioner. I appreciate the service and leadership Becky demonstrated by arranging my clinical time to have the experiences needed, in addition to advising me all these years. I also want to thank Julie DeWitt-Kamada for expressing a belief in me and turning every meeting together into positive learning experiences. It has been a pleasure working with Mel Haberman; I very much appreciate the efforts put forth in accepting to chair my committee, as well as provide me with direction in accomplishing this work.
The human brain has the capacity to perceive and respond to innumerable environmental cues that include complex social-emotional summaries of experiences brought about when humans live together. Research suggests that there are varying degrees of adverse psychosocial and neuropsychological outcomes for those with a history of childhood maltreatment. The sequel of untreated childhood maltreatment contributes to physical and mental health problems, such as anxiety, depression, impulsiveness, and aggression. Constant interference due to the stress and high cognitive load impairs the ability to self-regulate. Chronic exposure to stressful events especially during a child’s early years, can adversely affect executive function (EF) such as attention, memory, decision-making and cognition. Consequently, as children transition into adolescence, their ability to focus, organize, and process information is decreased. Early adolescence is a period of significant brain growth and development, which means there is a window of opportunity to educate and change the course of outcomes. Peplau’s Interpersonal Relations Theory (IPR) focuses on the relationship between the nurse and client as the core foundation of nursing care. Peplau indicated that human behavior can be understood by identifying psychobiological experiences that influence the functioning of personality. It is important to understand factors influencing brain development because brain development has foundational effects on shaping a person’s life in terms of personality and cognitive processes.

KEY WORDS: Childhood Maltreatment, Adolescence, Executive Function
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACKNOWLEDGEMENTS</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>THEORETICAL FRAMEWORK</td>
<td>2</td>
</tr>
<tr>
<td>Peplau's Theory of Interpersonal Relations</td>
<td>2</td>
</tr>
<tr>
<td>LITERATURE SEARCH STRATEGIES</td>
<td>4</td>
</tr>
<tr>
<td>LITERATURE REVIEW</td>
<td>5</td>
</tr>
<tr>
<td>Characteristics of Normal and Abnormal Executive Function</td>
<td>5</td>
</tr>
<tr>
<td>Childhood Maltreatment</td>
<td>7</td>
</tr>
<tr>
<td>Behavioral Responses to Maltreatment</td>
<td>8</td>
</tr>
<tr>
<td>Effects of Maltreatment on Executive Function</td>
<td>10</td>
</tr>
<tr>
<td>RECOMMENDATIONS FOR PSYCHIATRIC MENTAL HEALTH NURSE PRACTITIONERS</td>
<td>11</td>
</tr>
<tr>
<td>RECOMMENDATION FOR FURTHER RESEARCH</td>
<td>15</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>17</td>
</tr>
</tbody>
</table>
Introduction

Child maltreatment contributes to multiple physical and mental health problems throughout the course of life. Childhood maltreatment is defined as:

all forms of physical and/or emotional ill-treatment, sexual abuse, neglect or negligent treatment or commercial or other exploitation, resulting in actual or potential harm to the child’s health, survival, development or dignity in the context of a relationship of responsibility, trust or power (Butchart, Phinney, Mian, & Furniss, 2012, p. 9).

The many harmful long-term developmental results affect social relationships as well as academic performance, resulting in possible “anxiety, depression, conduct disorder, childhood aggression, and delinquency, increased risk for suicide, high-risk sexual behavior, interpersonal problems, poor physical health, posttraumatic stress disorder, risky health behaviors, substance abuse, and youth violence” (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008, p. 3). Negative external factors potentially have adverse effects on psychological development.

Childhood maltreatment often contributes to varying degrees of adverse psychosocial and neuropsychological outcomes (De Bellis, 2005). Adverse relational interactions at a young age greatly affect neuropsychological development, which distort a child’s psychological and psychosocial interpretations consequently making it difficult for children to navigate their environments.

Chronic exposure to stressful related events, especially during a child’s early years, can adversely affect Executive Function (EF) skills. Williams, Suchy, and Rau (2009) defined normal EF as a “set of neurocognitive processes that facilitate novel problem solving, modification of behavior in response to environmental changes, planning and generating strategies for complex actions, and ability to override pre-potent behavioral and emotional responses to engage in goal-directed behavior” (p. 1). Constant interference due to stress and high cognitive load impairs the ability to self-regulate (Heatherton, 2011). Heatherton (2011), noted:
Self-regulation requires four psychological components. First, people need to be aware of their behavior so as to gauge it against societal norms. Second, people need to understand how others are reacting to their behavior so as to predict how others will respond to them. This necessitates a third mechanism, which detects threat, especially in complex social situations. Finally, there needs to be a mechanism for resolving discrepancies between self-knowledge and social expectations or norms, thereby motivating behavior to resolve any conflict that exists (p. 363).

As a result adolescents who experience early childhood maltreatment are at a significant risk to problems with self-regulation (Cooper-Kahn & Dietzel, 2008), which is central to developing interpersonal relationships.

Childhood maltreatment may lead a child to “develop a bleak perspective, expectations of failure, a low sense of self-worth, and a foreshortened view of the future, all of which disrupt the ability to plan, anticipate, and hope” (Lubit, Rovine, Defrancisci, & Eth, 2003, p. 133). These learned behaviors follow into adolescence. Looking at EF as an evolutionary process may help to explain factors influencing behaviors in adolescents with a history of childhood maltreatment. The four purposes of this paper are to investigate (a) characteristics of normal and abnormal EF, (b) childhood maltreatment, (c) behavioral responses to maltreatment, and (d) the effects of maltreatment on EF. The population of interest is adolescent and young adults 11-24 years of age.

**Theoretical Framework**

**Peplau’s Theory of Interpersonal Relations**

Interpersonal Relations Theory (IPR) assumes that the outcome of the patient is dependent upon the kind of person the nurse becomes (Peplau, 1998). Therefore forward movement of self in the nurse has a substantial effect on what each patient will learn during the therapeutic process. Nurturing personality development in the direction of maturity for both the nurse and the client becomes the therapeutic process. Peplau’s developed principles and methods that guide the
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

therapeutic process begin assisting the patient in identifying their felt needs in everyday interpersonal problems and difficulties. Peplau (1988) uses the nursing process to cultivate respect for the patient as she guides through an educative, therapeutic journey.

Peplau’s IPR theory includes the following roles: person- a developing organism attempts to reduce need-based anxiety; health- positive growth of personality and human processes to attain productive personal and community life; nursing- significant therapeutic interpersonal process functioning cooperatively with other human processes to attain health; and environment- outside cultural forces (Peplau, 1988). Peplau’s theory identified four overlapping phases of relationship development: (a) orientation establishes therapeutic nurse-patient relationship in safe, nurturing environments; (b) identification recognizes underlying defense mechanisms and coping strategies; (c) exploitation balances need for dependence and independence (self-actualization); and (d) resolution gradually resolves the nurse-patient relationship, consequently facilitating client independence (Peplau, 1988).

According to Peplau (1988), the primary psychological response pattern to the threat of a loss causes stress and anxiety, frequently coupled with guilt, doubt, fears, and obsessions learning that associated emotions and behaviors interfere with the individual’s functioning. Responses to anxiety come from learned behaviors influenced from internal (psychobiological) and external (cultural) forces, and as a result alters one’s personality. Factors influencing the therapeutic relationship are values, cultural forces, beliefs, past experiences, and expectations of the client and the nurse. The nurse develops clarity of the patient’s preconceived thoughts about their needs while also recognizing preconceptions of the patient’s problem-solving abilities. Peplau’s IPR describes a helping relationship between the nurse and the patient. The nurse implements a process to assist the patient in identifying felt needs while simultaneously empowering the patient by leading them to problem solve helping to strengthen the sense of self. This nurse-patient
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

relationship is a multi-dimensional progression where the nurse performs many roles that guide the patient through the learning and healing process.

Nurses promote health through a nurse-patient relationship and six role characteristics. The nurse as a Stranger shows interest and respectfully waits for the client to develop a positive feeling before orienting and providing services. As a Resource person, the nurse “provides specific answers to questions usually formulated with relation to a larger problem” (Peplau, 1988, p. 47). The nurse as Teacher provides relevant health education and in the Leadership role facilitates democratic leadership in which all involved participate. The nurse as Surrogate will advocate for patient, as she clarifies for patient of his notions of dependence versus independence. The nurse as Counselor guides clients through a process of self-awareness and renewal to achieve an understanding of how experiences and circumstances affect their lives.

**Literature Search Strategies**

A literature search was conducted through the WSU Library link EBSCO host then an advance Search Engine CINAHL Database using the key terms “child abuse,” “childhood neglect,” and “executive function.” Articles were further reduced using search parameters for peer review Nursing and Advance Nursing Practice Journals as well as modifiers using the key words “childhood maltreatment,” “adolescent,” and “young adults.” A comprehensive search of electronic databases was performed in CINAHL, PsychINFO, PubMed and Google Scholar. Included in the review were empirical studies, literature reviews, and methodological articles dating from 1978 to 2011. Sixty articles were found. A total of 27 articles were selected for this paper. The articles were organized into four sections: characteristics of normal and abnormal executive function (6 articles), childhood maltreatment (2 articles), behavioral responses to maltreatment (11 articles), and the effects of maltreatment on executive function (8 articles). These concepts form the organizational framework for the literature review.
Literature Review

Characteristics of normal and abnormal executive function

Executive functioning (EF) helps to focus attention on what is important and ignores distraction. For example, someone who is bilingual uses EF in every sentence spoken, as he processes each sentence in first language and translates into another (Poulin-Dubois, Blaye, Coutya, & Bialystok, 2011). According to Barkley (2001) “EF is viewed as forms of behavior-to-self that evolved from overt (public) to covert (private) responses as a means of self-regulation” (p. 1) “EFs are composed of major classes of behavior toward oneself used in self-regulation” (Barkley, 2001, p. 5). They evolve from external and internal experiences, perceptions and beliefs that shape early brain development.

Development of EF occurs across four stages. The first EF during early development is non-verbal working memory involving sensory-motor inputs especially visual and auditory, which are the most influential. Processing these sensory-motor influences may be retrospective or prospective. A prospective function, called “sensing the self,” is a prediction of the future from past experiences. Sensory and motor experiences have a powerful effect on brain organization. The sensory and motor experiences challenge the brain to either enhance or impair cognitive and motor functions.

Verbal working memory is the second EF, which is self-speech that allows self-description and reflection, self-instruction, self-questioning and problem solving by developing rules to be applied to oneself. The third EF is self-regulation of affect/motivation/arousal. This EF involves private internalizing, self-speech, and re-sensing visual, and re-sensing verbal information to oneself. Barkley (2001) states, “these mentally represented events have associated affective and motivational properties or valences,” which are “called somatic markers” (p. 8), which develop our defense mechanisms. The fourth EF is reconstitution (self-directed play),
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

which uses analysis and synthesis of many behavior patterns; first broken down into smaller
sequences, then synthesized into new sequences that can be tested against the problem to be
solved. It is hypothesized that self-directed play is the result of internalizing sensory-motor
influences and symbolic representations that serve to create new future-directed actions (Barkley,
2001). All experiences early in life affect the development of EF.

Effects of childhood maltreatment may negatively impact the ability to learn, and also to
have control over one’s environment, consequently recruiting the dysfunctional higher order PFC
mediated cognitive control mechanisms. Children in environments lacking safe boundaries
develop stress-induced coping mechanisms. Their defenses emerge when potential harm to self is
perceived, even if situations pose no real danger. The mere thought of an unpredictable situation
potentially triggers a perceived threat to self. For an already anxious adolescent or young adult, a
sense of powerlessness may cause anxiety, which triggers the learned defense produced by earlier
external/internal experiences, perceptions and beliefs that shaped early brain development and
self-speech that allows self-description and reflection, self-instruction, self-questioning and
problem solving. The solutions come from developing rules to be applied to oneself even though
they are dysfunctional.

EF are “linked to the integrity of the PFC and consist of attention; working and delayed
memory; the ability to learn, regulate emotions and behavior, and problem solve; and perform
psychomotor tasks” (De Bellis, 2005, p. 151). Van der Kolk (2005) explained that “because
traumatized children often have distorted inner representations of the world, they have no
‘internal maps to guide them’ and that, consequently, they ‘act instead of plan’” (p. 403). EF in
working memory, may lead to unstable and unreliable emotional regulation, which may lead to
chronic depression, anxiety, or one being hyperemotional (Schmeichel, Volokhov, &Demaree,
2008). Impaired flexibility in recruiting brain regions and associate strategies limits adapting to
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

new cognitive demands as they present and requires more effortful processing (Fassbender & Schweitzer, 2006).

In summary, the anatomical and physiological-based literature is complex. On a behavioral level, the literature that investigated EF in adolescents and young adults indicated EF is adversely affected by childhood experiences. Childhood maltreatment inflicts stress, which results in negative, unpredictable reactions. Studies suggested the effects of maltreatment impact growth and development of the brain’s neuronal growth processes, including EF. These effects trigger behavioral responses seen in the examination of brain imaging, which link emotional responses to specific and relevant brain activity. Maltreatment experiences or perceptions of these experiences can alter brain development, specifically affecting higher-order thinking. For instance, an adolescents’ ability to determine a cause-effect relationship when making a decision is altered when an EF deficit is present. Therefore, the adolescent’s reactions or responses in the form of negative behaviors must be identified to receive appropriate nursing interventions. Prior to the complete maturation of the brain, it is pertinent to detect abnormal EF in order to intervene early and redirect perceptions and behavioral, learned responses.

Childhood maltreatment

Childhood maltreatment is a multifaceted complex issue. “The organization and functional capacity of the human brain depends upon an extraordinary set and sequence of developmental and environmental experiences that influence the expression of the genome” (Anda, 2006, p. 174). Child maltreatment is deeply rooted in cultural, economic and social practices (WHO 2006). Teicher (2002) stated that childhood maltreatment that takes place during a “critical formative time when the brain is being physically sculptured by experience, the impact of severe stress can leave an indelible imprint on its structure and function” (p. 70). The dynamics and factors of childhood maltreatment, involve relational interactions that over time
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

negatively affect the child’s physical, cognitive, emotional and social growth. “Different parts of
the brain develop by receiving stimulation that provokes activity in that region” (Butchart, et al.,
2006). Abuse and neglect over time may leave a child living in a state of hyper-arousal and
unable to learn.

Behavioral responses to maltreatment

Repetition of maltreatment can chronically activate the amygdale, which potentially
affects the part of the brain that regulates behaviors and emotions by inhibiting prefrontal cortex
development (De Bellis, 2005). Stuss, Gow, and Hetherington (1992) grouped emotional changes
secondary to frontal lobe injury into three types of dysfunction, which include motivation or
ambition, mood and expressive affect. EF incorporates the external sensory as well as the internal
limbic senses, which are unique to every individual. Stuss, et al. goes on to say, “the role of the
frontal lobes in motivation, organization and integration, and motor expression make this cortical
region and subcortical connections extremely important in understanding individual subjective
reactions and external behaviors that might be classified as expressions of personality” (p. 350).

Heim and Nemeroff (2001) reported epidemiologic studies “suggest that early life stress
induces long-lived hyper(re)activity of corticotrophin-releasing factor (CRF) systems as well as
alterations in other neurotransmitter systems, resulting in increased stress responsiveness” (p.
1023). Findings from functional neuroimaging tests examined the effects of cortisol on EF in
primates. Key findings reported activity in the right ventral lateral prefrontal cortex (VLPFC);
right orbital prefrontal cortex (OPRC), inferior frontal gyrus region, and left anterior cingulated
cortex (ACC). These findings were associated with objective and subjective measures of
psychological stress. For example, the pattern of activation continued even after stopping the
stress in those that had prior heightened stress. This suggests that the right lateral PFC may be
capable of prolonged stated of heightened arousal elicited by the stressor. A another study using
perfusion functional MRI reveals cerebral blood flow pattern in 32 human subjects and found that the right lateral PFC and the right orbital PFC found these areas to be negatively influenced by stress in that these areas were not directly affected by the cortisol but suggest that the role of these areas might be affected in the appraisal of the stress (Wang et al., 2005).

More simply stated, EF pathways take place in the frontal and pre-frontal cortex that send messages to other areas of the brain including the right lateral PFC, right orbital PFC, inferior frontal gyrus region, and the anterior cingulated cortex all of which appraise affective stimuli relating to people, all the while receiving and sending messages to the limbic system (center of emotions). The PFC contributes to long-term memory (only for associations) such as active processing of relationships. De Bellis (2005) explains that “chronic stress and its resulting increased activation of catecholamines can “turn off” the prefrontal cortex’s inhibition of the limbic system; this can cause children to lose the ability to focus and attend in school” (p. 160).

A study of 26 female college students (early adulthood), with a history of repeated childhood maltreatment, had difficulty with inhibition (self-regulation) in that they had a hard time lining their options at any given time to an outcome as compared to a control group (Navalta, Polcari, Webster, Boghossian, & Teicher, 2006). The participants showed increased response latency and decreased inhibition during a G/No/-Go/Stop task. Navalta and colleagues (2006) found the students had slower response in making decisions, possibly because the brain is unable to signal the need to recruit higher-order prefrontal cortex mediated cognitive control mechanisms quickly due to smaller corpus callosums (CC). Childhood maltreatment has been associated with abnormalities in brain development, particularly the CC.

Teicher et al. (2004) found that adolescents with a history of childhood maltreatment had 17% smaller CCs than those in a control group. Navalta (2006) reported that reduced hemispheric integration might be a consequence of a reduced CC area. She also found that math
and verbal scores were significantly lower than those of comparison groups. Nolin and Ethier (2007) stated those with a history of childhood maltreatment showed “cognitive deficits in auditory attention and response set, and visual-motor integration and problem solving, abstraction, and planning” (p. 631). The study populations are representative of individuals experiencing effects of neurodevelopment potentially caused by early developmental stress. These generalized findings appear to be consistent, as well as replicated considering them to be promising results in terms of psychosocial variables impacting psychobiological outcomes.

**Effects of maltreatment on executive function**

According to DePrince, Weinzierl, and Combs (2009) most approaches to studying EF in childhood maltreatment are associated to emotional stimuli (particularly threat-related) and the effects of chronic stress on emotional regulation. Developing EF neurons in the brain depend on the signals from the lower brain. Kim and Diamond (2002) offered a three component definition of stress pertinent to animals, as well as humans: stress requires heightened excitability or arousal causing behavioral (motor) activity; the experience must be perceived as aversive, meaning it would be avoided if possible; and, most importantly, whether there is a controllability factor over the stress. Stress is a neurophysiological phenomenon. Stressful social situations may become a source of anxiety and frustration, which perpetuate and interfere with school outcomes (Slade & Wissow, 2007) and the development of ongoing healthy social relationships (Bolger & Patterson, 2001).

Early adolescence is a period of significant growth and development, characterized by three distinct brain processes: proliferation, pruning, and myelination (Perry, 2002). The brain is made up of neurons, synapses, axons and dendrites, which are identified as either white or gray cortical matter. White matter acquires its shading through a process called myelination of the axons. A myelin (fatty sheath) covers the axons and acts as an insulation that increases the speed
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

of transmission in nerve signals (Kolb & Gibb, 2011; Perry, 2002). Myelination is a key feature of frontal lobe development, and the process parallels the development of EF skills (Dawson & Guare, 2010). Research suggests that the prefrontal cortex is the last area of the brain to fully mature (Brain Development Cooperative Group 2012).

Grey matter is made up of neurons and synapses, which multiply (proliferation) during significant periods of learning as information is filed, organized, and consolidated. A pruning process eliminates neurons and synapses that are not used; however, pruning may be inefficient. Excessive pruning takes place two times in a person’s life whereas myelination continues well into young adulthood. Giedd et al. (1999) conducted a longitudinal study and found “cortical gray matter was regionally specific and during developmental curves for frontal and parietal lobes peaking at about age 5 and 12 and for the temporal lobe at about age 16, whereas cortical gray matter continued to increase in the occipital lobe through age 20” (p. 861). These findings signify that myelination follows a longitudinal developmental process during childhood and adolescence.

Recommendations for Psychiatric Mental Health Nurse Practitioners

The therapeutic relationship is a critical part of healing. The application to practice offers nurse practitioners practical suggestions in using the necessary tools and insights such as Peplau’s guiding principles. The first guiding principle Peplau (1988) describes as a developing personality, which are consistent with Barkley’s EF evolutionary model. “Instinctual drives, such as hunger, thirst, sexuality, and acquired needs, such as for belonging, for participating and contributing in order to reinforce self-respect and gain recognition from others, are imperative human needs (Peplau, 1998, p. 130). It is essential for nurse practitioners to examine the individual as a system of physiological, psychological and social spheres, which are attempting to reach equilibrium throughout the process of life (Peplau, 1988). “The so-called ‘executive functions’-goal setting, anticipating consequences, and initiating and carrying out plans-are very
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

important for achieving academic and social success and for establishing vocational goals” (Mezzacappa, Kindlon, & Earls, 2001, p. 1042). EF deficits interfere with the ability to reach equilibrium. The nursing objective for an adolescent with a history of childhood maltreatment should include assisting them in trying to achieve balance in their health. It is important to understand that an adolescent or young adult’s altered EF will adversely affect their personality and cognitive processes, which lends itself to determining a proper course of nursing intervention.

Developing trust is the foundation of the nurse-patient relationship. A trusting therapeutic relationship allows the practitioner to intimately understand the needs of the patient as well as allow them to experience a healthy relationship while learning new social skills that produce new behaviors. Additionally, at the core of building a therapeutic relationship with a hesitant, unsure and vulnerable adolescent is helping them realize that they are “repeating their early experiences and helping them in finding new ways of coping by developing new connections between their experiences, emotions and physical reactions” (van der Kolk, 2005, p. 408). According to Peplau (1988), “Understanding what these experiences are, which compel destructive or constructive responses from nurses and patients, is a step in the direction of personal and rational control of behavior” (p.71).

Peplau’s IPR theory relies upon the following developmental phases of the relationship characterized by a dynamic learning experience for both the patient and nurse, which are person, health, nursing, and environment. The essential nursing ingredients throughout these phases are observation, interpretation and intervention. Applying Peplau’s IPR theory, nursing intervention must start with a careful and thoughtful assessment of the person’s current physical and mental health state. Next, the nurse must identify internal and external beliefs and environmental cultural influences about past experiences and expectations, which shaped the formation of a value system (Peplau, 1988). What sets Peplau’s theory apart from other nursing theorists is the inclusion of
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

forming a nursing diagnosis. Peplau’s theory and Barkley’s EF model are both unique to serving adolescents and young adults with a history of childhood maltreatment. Those affected by the adverse experiences may have learning difficulties, which should be included when developing a nursing diagnosis. Improving problem solving skills as well as developing skills to strengthen the self will effectively provide forward movement in health.

It is the nurse’s role while orientating the adolescent or young adult to the environment to empower them in ways that will provide a sense of importance, which begins improving self-worth. This may be accomplished by discussing values such as mastery, belonging, generosity and independence while identifying the adolescent’s strengths and limitations. In this phase, assessment identifies the extent to which help is needed, and also whether or not the adolescent recognizes his or her own challenges. It’s important to encourage the adolescent to participate in identifying the problem and encourage them to be an active participant in treatment. To promote a feeling of comfort and ease in expressing their needs, it’s important to allow the adolescent or young adult to ask questions in order to receive help.

Following the orientation phase, the nurse-patient relationship moves into the identification phase where a partnership is formed to identify the problems to work together within the confines of this new trusting relationship. In problem solving both the nurse and the adolescent or young adult must continually clarify expectation of themselves and the other, and set mutually agreeable goals and develop a realistic plan of action. Understanding each other’s perceptions of problem-solving helps to identify unresolved conflict, as well as possible solutions. Once identification has been achieved the relationship enters the next phase.

In exploitation phase, an adolescent or young adult begins to use the resources offered to them by the nurse. Self-realization begins to take place and a sense of control over one’s environment begins to take hold. This is accomplished by promoting their insight and perception
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

of reality and also using problem solving to work toward goals. This is a time to teach new skills, while supportively confronting limitations. Resolution occurs when the adolescent or young adult is able to move forward in life and is able to meet his or her own needs in a healthy manner through problem solving. This is a time to make referrals if necessary as well as recognize and explore feelings and thoughts about ending this particular work.

Peplau’s (1988) theory is also referred as psychodynamic nursing, which is the understanding of one’s own behaviors. The nurse becomes part of the environment, and influences the relationship experientially. The concepts described in EF not only apply to the client but apply to the nurse as well. For instance, all behavior has meaning so it’s important for the nurse to continually assess oneself in the therapeutic process prospectively in self-awareness and reflection. Self-awareness includes feelings, thoughts and behaviors during all interactions. This may be better explained as mindfulness-merely being present and in the moment to see what the experience is. A nurse may prepare the self through many different avenues such as individual therapy, a group therapy, mediation or anything that allows time for self-reflection with continued forward movement.

Application of Peplau’s theory creates a relational environment between the nurse and the adolescent in which the nurse assists in the process of self-regulation. Beginning with the person, it is essential to discover the needs of the adolescent (Peplau, 1988). Addressing the needs as well as providing opportunities and direction to rehabilitate internal thought processes will help adolescents and young adults address the stress and anxiety from suppressed perceptions of threat.

Even more than children brought up in a nurturing environment, adolescents who are raised in a non-nurturing or abusive environments compromise EFs due to undesirable experiences throughout their childhood that may leave them with negative perceptions of certain environments. Therefore, providing them a safe and therapeutic environment will help to redirect
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

internal influences. Safe environments create pathways to rebuild an adolescent’s schema and perception of what a healthy environment should look like. Using the nurse-adolescent or young adult relationship as an example of a healthy relationship in a safe environment will be conducive to an adolescent and young adult, learning new interpersonal and socially accepted skills. Social identification has profound effects on all of us. Gallese (2009) noted:

Social identification incorporates the domains of action, sensations, affect, and emotions and it is underpinned by the activation of shared neural circuits. A common underlying functional mechanism—embodied simulation—mediates our capacity to share the meaning of actions, intentions, feelings and emotions with others thus are grounding our identification with and connectedness to others. Social identification, empathy, and “we-ness” are the basic ground of our development and being (p. 519).

Nurse practitioners must vigilantly identify and continuously reflect on the adolescent or young adult’s responses to interventions. Ongoing reflection of an adolescent or young adult’s progress involves formative assessment that, in turn, guides subsequent intervention. Nurses need to avoid imposing their personal preferences on adolescent or young adults and instead truly individualize their approach to each adolescent or young adult based upon their adolescent or young adult’s health promotion path (Baumann, 2007). “Nursing is a process that seeks to facilitate development of personality in ways that ensure maximum productivity” (Peplau, 1988, p. 73).

Recommendations for Further Research

Psychiatric nurse practitioners are positioned to work closely with school faculty and school nurses, if available, to identify adolescents and children who have histories of childhood maltreatment. There is little research of disciplines crossing over and working together to provide strong consistent learning opportunities for adolescents and young adults with a history of childhood maltreatment in regards to their learning either in a therapeutic relationship or academically. Research across disciplines would offer the possibility of increasing knowledge of EF practices upon which better research can be conducted by bringing together a variety of
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

perspectives, thus improving the findings and evidence for changing the learning environment. At this time it appears the research is generalized although with promising future direction.

Primary schools are becoming more interested in acquiring new strategies to increase academic performance. Given that those adolescents with challenges in academics tend to have greater absences. When schools and communities begin to cross disciplines to improve the well being of our children can we have a well developed research probabilities. Using IPR may facilitate efforts to provide effective treatments for affected individuals. Moreover, studies conveying qualitative data would be helpful in determining treatment plans for maltreated adolescents and young adults. Researchers need to conduct longitudinal studies to examine the long-term effects of childhood maltreatment. Researchers would need to differentiate between those receiving interventions versus those going untreated. Teicher (2002) stated that the “psychological effects from the neurobiological changes in the brain overtime may foster the development of intrapsychic defense mechanisms that prove to be self-defeating in adulthood” (p. 70). Therefore, it may be beneficial to compare and draw conclusions when research focuses on the area of Peplau’s defense mechanisms looking at needs, frustrations, which cause tension and anxiety and determining the conflict (opposing goal) (Peplau, 1988).

It is important to note that this is a challenging demographic to study. The individuals studied would either need to have parental consent or be over the age of 18. Obtaining legal consent from the parent who maltreated the child would be difficult, if not impossible, and could potentially expose the child to further maltreatment. “Child maltreatment remains for many people a highly sensitive and emotive issue that is not easily discussed in private, let alone in public debate” (Butchart, et al., 2006). However, many of those with a history of childhood maltreatment are in foster care which eliminates the need for parental consent in some cases.
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

References


CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION


CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION

Organization. Retrieved from:


CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION


20
CHILDHOOD MALTREATMENT AND EXECUTIVE FUNCTION


