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NURS-501-001

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June 2, 2020

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At some point in our nursing career, we have all crossed paths with those particular patients and their families who left a scar on our hearts. We can still see their faces when we reminisce, or even again feel the emotions we had while caring for them. Whether the outcome was good or bad, these are the patients that help shape our professional identity, and fuel our passion for the specialty we work in.

As for me, my background is primarily trauma nursing. This area of work ignites a fire inside of me and fuels my passion for helping people. It has truly molded me into who I am today; it has changed me as a person and my perspective on the meaning of life. I have poured my heart into trying to save the lives of those struck with crippling adversity, and I have mourned over the lives my team and I could not save, time and time again. I will never forget the face of my first "code blue" six years ago. The feeling of adrenaline running through my body, with my hands wrapped around her tiny fragile chest, praying with every ounce of my being for a heartbeat to show up on the monitor. She was only nine months old. Her life was taken too soon due to an accidental asphyxiation from her car seat. This is a prime example of how just how important proper car seat and booster seat education is to parents, especially those who live in rural areas with limited access to health care and community resources.

However, I have also cried countless tears of joy for the ones we could save. I have cheered them on while watching as they take their "first steps" since hospitalization, and have held many hands through the process. Caring for patients who have experienced an unintentional injury is anything but easy—it can be physically demanding and emotionally taxing, but watching and experiencing their progress along the way is rewarding and truly worthwhile. As a

future pediatric nurse practitioner, prior trauma nurse, and now pediatric orthopedic/rehabilitation nurse, I have experienced firsthand the alarming amount of unintentional injuries that occur in New Mexico.

In 2014, the leading cause of unintentional injury death in New Mexico was specifically linked to motor vehicle accidents and disturbingly, “in the 44 reviewed deaths of children who were killed as occupants in cars/trucks/vans, 22 (50.0%) were not using safety restraints, i.e. seatbelt, shoulder belt or child car seat” according to The New Mexico Department of Health (2015). However, all states in the US have now enforced some form of child passenger safety laws, including the use of car seats and booster seats to decrease mortality rates. “Booster seats have been proven to prevent these injuries and save lives” according to The Washington State Booster Seat Coalition, with concrete evidence that “children riding in booster seats are 59 percent less likely to suffer serious injury than those using only seat belts” (2004).

Injury prevention is a topic that needs to be better addressed in primary care settings, as there is a strong correlation with lack of education and incidence of traumatic unintentional injury. I believe that through creating a heightened awareness on the topic of unintentional injuries, access to education, and building a better relationship with the patient and parents in the primary care setting, this will improve our state’s rate of pediatric unintentional injury and death from motor vehicle accidents. As a result of these actions, my hope is for these children to have a higher quality of a healthy life and safety, along with enhanced education for children and parents.

Part Two: Pender’s Health Promotion Model and Concept Identification

Providing education about preventing unintentional injuries in the pediatric primary care setting, specifically in the rural and underserved areas of New Mexico known to have a lack of

resources and heavily impacted by social determinants of health, is a crucial step to spreading awareness and gaining patient participation in health promoting behaviors. Nola Pender's Health Promotion Model can be applied to help achieve this goal and impact patient outcomes. I have chosen Pender's theory because I share the same perception for health promotion as she did, in which she was convinced that a patient's quality of life could be improved by preventing acute and/or chronic health problems before they even occur (Nursing-Theory.org, 2016).

Nola Pender's Health Promotion Model (HPM) first appeared in nursing literature in 1982, and since then, the original model was revised in 1996. Nola J. Pender, born in Lansing, Michigan had her first encounter with nursing when her aunt was hospitalized, ultimately inspiring her own career in nursing. Countless articles, journals, and books regarding her work have been published throughout her nursing career, and is currently a professor and associate dean for research at the University of Michigan School of Nursing (Sitzman & Eichelberger, 2017). Pender describes the purpose of her HPM is to "assist nurses in understanding the major determinants of health behaviors as a basis for behavioral counseling to promote healthy lifestyles" (2011, p. 2). Pender's HPM comes from a discipline of psychology and public health (Nursing-Theory.org, 2016).

The foundational concepts of the Health Promotion Model include person, environment, nursing, health, and illnesses. In relation to my chosen topic of pediatric unintentional injury prevention, I have defined the following key concepts that can be closely correlated to Pender's concepts that outline the basis for her HPM. My concepts include: 1. Children, which relates to the concept of person, 2. Unintentional injury, relating to the environmental, illnesses, and health concepts, 3. Relationship, relating to the concept of nursing and community, 4. Safety, also relating to the environmental concept, and 5. Education, acknowledging the lack of, and need

for, education available for children and families in rural settings. These correspond to the nursing and health concepts that have fabricated Pender's Health Promotion Model.

Health promotion has become a major focus of nursing care in the twenty-first century, according to Sitzman & Eichelberger (2017). I have selected to use Pender's Health Promotion Model for a couple of reasons. My decision to pursue an advanced degree in nursing, and become an advanced practice provider was greatly influenced through learning the importance of preventative care; it is painfully apparent the state of New Mexico desperately needs better access to primary care. Primary care is essential in teaching our patients about their health, and how living a healthy lifestyle. Including the topic of unintentional injury prevention contributes to a higher quality of life.

I was also inspired while reading more in depth about Pender's definition of health promotion, her dedication to teaching others' her about her theory, and the important role it plays in nursing and preventative primary care. I have a similar perception of what health promotion means, in which I felt I could make a strong connection to this theory. The theory of health promotion provides patients with improved autonomy and instruction to make better decisions for themselves, along with a stronger desire to participate in self-care. It is important that we as healthcare providers can aid in preventing injury and illness from happening in the first place, rather than learning to cope with the aftermath, when we can. The HPM directly associates with preventing unintentional injury from motor vehicle accidents in the pediatric population. For example, teaching proper car seat fitting and placement, abstinence from drinking and driving, and simply the importance of wearing a seatbelt.

The three major components of Pender's HPM include individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcomes/health promoting

behaviors. Individual characteristics and experiences deeper explore her defined concept of person, including prior related behaviors and personal factors. These include the person's frequency of comparable past health behaviors and if there is a recurrent pattern (Pender, 2011). Personal factors are examined from a biological, psychological, and sociocultural standpoint, including "general characteristics of the individual that influence health behavior such as age, personality structure, race, ethnicity, and socioeconomic status" (Pender, 2011, p. 4).

Behavior-specific cognitions and affect make up a large component of the HPM. Factors include perceived benefits of and barriers to action, perceived self-efficacy, activity related affect, interpersonal and situational influences, commitment to a plan of action, and immediate competing demands and preferences (Pender, 2011). Benefits of and barriers to action closely examine the person's perception of health behaviors, what barriers they may face when looking to change a health behavior, and their awareness of how undertaking a health behavior will have a positive impact or consequence, according to Pender (2011). Understanding interpersonal and situational influences plays a major role in the behavior component of the HPM. This guides nurses to consider how a person's family, peers, and relationship with providers influence the behaviors, beliefs, and attitudes of specific health behaviors, as well as the "norms, social support, and role models of perceptions concerning the behaviors, beliefs, or attitudes" (Pender, 2011, p. 4). Commitment to a plan of action demonstrates the intent of a person to carry out a specific health behavior and recognizes strategies that will help the patient reach their goals, while immediate competing demands and preferences play a role in identifying one's alternative behaviors that may affect the course of action in planned health behaviors (Pender, 2011). Behavioral outcomes/health promoting behavior defines the last major component of Pender's HPM. Ultimately, this defines the desired the outcome for the person's healthcare decision

making, and the preparation for action for successful health promoting behaviors, according to Pender (2011).

Pender’s HPM is classified as a high middle range theory, and has been used in nursing practice and research for decades as a framework “aimed at predicting health-promoting lifestyles as well as specific behaviors” (McEwen & Wills, 2014, p. 235) Figure 1 illustrates the conceptual diagram for Pender’s Health Promotion Model.

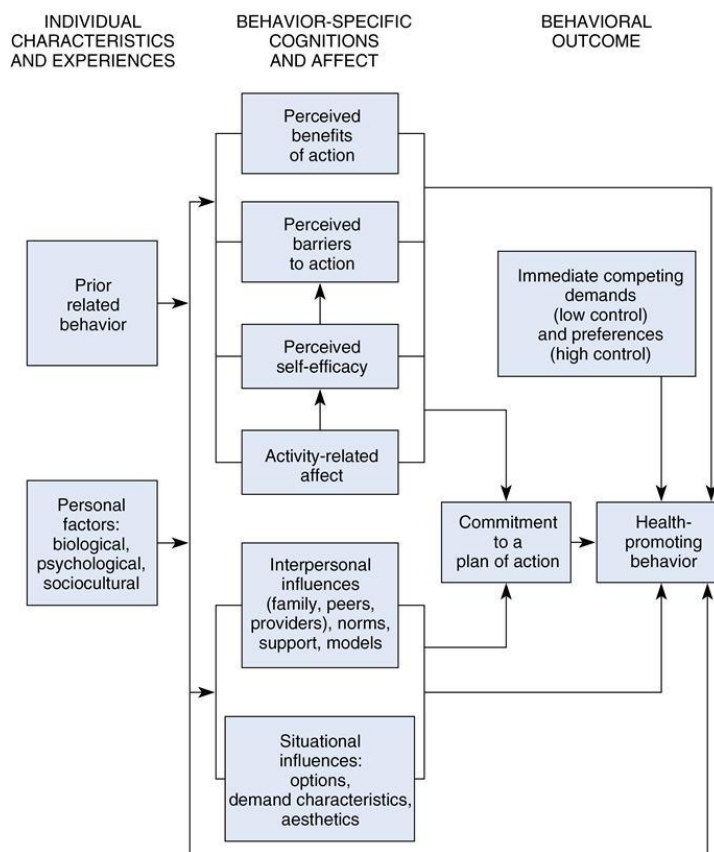


Figure 1 Health Promotion Model (Image retrieved from NurseKey.com, 2017).

This diagram demonstrates the major concepts that have been described above— individual characteristics and experiences, behavior specific cognitions and affect, and

behavioral outcomes. Visualization of the HPM helps nurses distinguish the relationship between all three major concepts and their meaningful impact on the behavioral outcome of patients, including their commitment to a plan of action and how it influences health promoting behaviors (McEwen & Wills, 2014, p. 235).

Part Three: Applying Pender's Health Promotion Model to Promote Unintentional Injury Prevention

Injury prevention campaigns for children requiring an additional car restraint (i.e. car seats, booster seats, etc.) due to their age, weight, and/or height, with a focus on education prevention methods, have been utilized nationwide and proven to be successful in increasing parent and children health education. Increased awareness and knowledge about risk for unintentional injuries, along with providing access to necessary tools and resources to be successful, have demonstrated notable behavior change and increased safety in vulnerable, rural communities. To best improve community education and outcomes regarding unintentional injury in children I will use Pender's Health Promotion Model, or HPM, as a foundation to develop a community coalition program supporting improved booster seat use in children. The goal of this community coalition program will be to educate parents and children about the use and importance of booster seats, teach state rules and regulations regarding their use, and provide access to an appropriate booster seat for their child if they live in a designated rural area with limited funds available. The program is designed to increase health-promoting behaviors and decrease pediatric mortality rates that occur as a result of motor vehicle accidents (MVA).

I will discuss booster seat use due to the alarming fact that for many parents and caregivers in rural areas booster seats are still considered a newer safety concept, which is my observed critical incident for the upbringing of this program. This demonstrates the increased

need for education in this area of unintentional injury prevention (UIP). There is often scarce access and financial means available for necessary safety devices such as a booster seat, and because of this critical public health issue, many children do not use a booster seat— who should otherwise be in one while in a moving vehicle. Lack of education, such as incorrect use of these devices, can also result in traumatic injury or death if involved in an MVA. “An estimated 46% of car seats and booster seats (59% of car seats and 20% of booster seats) are misused in a way that could reduce their effectiveness” (Centers for Disease Control and Prevention, 2019). The projected community coalition campaign will include all previously defined concepts as they relate to the HPM, including children, unintentional injury, relationship, safety, and education.

The concept of children, relating to person, will define the targeted age group of the campaign. Children between the ages of 4 and 8 years old are deemed highest risk for being improperly restrained while riding passenger in a motor vehicle, and also pose the highest risk of critical injury and/or death. “Children using seat belts that do not fit properly can suffer serious head, neck, and spinal injuries that can leave crash survivors with serious disability including brain injury and paralysis” (The Washington State Booster Seat Coalition, 2004). They can also suffer internal injuries within the abdominal region, known as “seatbelt syndrome,” when internal organs are compressed and severely injured. Providing awareness for this high-risk age group to parents and caregivers will help to identify if their child is at risk, and if further education and intervention will be necessary.

This concept concurrently relates to Pender’s theory component individual experiences including sociocultural and biological factors, in which also correlates to interpersonal influences that fall under behavior-specific cognitions and affect, and perceived benefits of action through

after recognizing whether or not the child should be in a booster seat. The expected behavioral outcome is to indulge in the health promoting behavior of utilizing a booster seat.

The concept of unintentional injury is the defining notion and purpose for the community coalition program. In regard to this campaign, the focus will be on how using a booster seat in the defined child age group can prevent death or critical injuries from happening. Within this concept, it is important to define the recommendation of booster seat use, as well as describing state laws regarding their use. “The American Academy of Pediatrics and the National Highway Traffic Safety Administration (NHTSA) recommend booster seats for children over 40 pounds and under 4’ 9” tall. Booster seat-size children generally are between 4 and 8 years of age, and between 40 and 80 pounds” (The Washington State Booster Seat Coalition, 2004). The state of New Mexico does have a Seat Belt Law in place (SBL). The SBL also covers booster seat use, stating that “children ages 7 to 12 must ride in a booster seat until the adult seat belt fits them properly” (Safer New Mexico Now, n.d.). Unintentional injury relates to individual characteristics and experiences by learning prior related behaviors, such as not utilizing a booster seat and not fully understanding the risk of not having one. This concept also plays an important role in helping to identify barriers that would fall under the behavior-specific cognitions and affect, including perceived barriers, interpersonal influences, and situational influences. Learning to identify individual influences and barriers will help to predict the behavioral outcome and what needs will need to be met to help positively influence health promoting behaviors.

Relationship is an important concept to consider for the foundation of the proposed coalition as it relates to community involvement, as well as patient-provider rapport and relationships. Injury prevention campaigns have shown to be more successful when using a community-based approach, according to the Washington State Booster Seat Coalition (2004).

Using a community coalition approach is beneficial to the campaign's financial budget, effective delivery of messages, builds a stronger bond within other key stakeholders within the community (schools, small businesses, etc.) and overall results in reducing injury risk. Applying a sense of community is extremely beneficial in small rural areas. "The more people hear that booster seats are important for children's safety in cars, the more likely they will begin to use them" (The Washington State Booster Seat Coalition, 2004). One way to include the community would be holding an in-service at the local elementary school for parents to attend. The relationship among patients and healthcare providers is also a crucial concept in order to assess what education is needed, along with being a positive influence and resource for the patient and guardian to utilize health promoting behaviors such as booster seat use.

The concept of relationship closely relates to the individual characteristics and experiences component of Pender's HPM. Being aware of prior behaviors and personal factors can influence the behavioral outcome of using a booster seat. For example, after identifying a prior behavior and how it relates to self-efficacy and barriers to action, we can better help the patient and their parent commit to a plan of action through providing the necessary resources like gaining access to an affordable booster seat in order to improve behavioral outcomes.

The concept of safety can be applied to the coalition campaign to assessing access to booster seats, proper fitting of booster seats, and identification and utilization of booster seat program for low income families. Booster seats can be costly, especially for low-income families who live in designated rural counties of New Mexico. It is important to provide resources that can help fund booster seats or provide them at a discounted rate. For example, identifying discount programs such as the New Mexico Child Safety Seat Distribution Program (NMCSSDP), can help low income families assist in purchasing a booster seat for twenty-five

dollars, and ensure it is properly fitted for the child's age, weight, and height (Safer New Mexico Now, n.d.). The concept of safety most closely correlates to the behavioral outcome component of Pender's HPM. Safety and utilizing a booster seat to better prevent pediatric unintentional injuries defines the desired behavioral end point.

Education plays a key role in the coalition campaign, in which this concept includes providing educational materials to parents such as videos, handouts written in the appropriate reading level material and language, along with hands-on demonstrations and visual aids. Providers must also be aware of identifying possible barriers that parents may face, including the extent of their understanding of booster seats, along with cost, child resistance, lack of shoulder belts in older cars, and difficulty fitting the seat in their vehicle (The Washington State Booster Seat Coalition, 2004). The health care provider plays an important role in this concept, ensuring that parents understand the consequences of not properly restraining their child in a moving vehicle and that proper education has been provided through teach-back methods. Education greatly impacts the success of health promoting behaviors.

The concept of education plays a major role throughout all components of the HPM. One's level of education and understanding relates back to the individual characteristics and experiences component, which then leads into identifying behavior specific cognitions and affect to ultimately help the parent and child reach the desired health promoting behavior of using a booster seat. Pender states that "perceived competence or self-efficacy to execute a given behavior increases the likelihood of commitment to action and actual performance of the behavior" (2011, p. 4)

Each concept described above has its obvious strengths and benefits listed as to how they can be successfully utilized for health promoting behaviors. Some of which include extensive

parent/guardian education, community involvement, and overcoming financial barriers in order to prevent critical injury and death in MVCs.

Some strengths that are recognizable in using Pender's HPM to prevent unintentional injuries include its applicability across the lifespan, and how it guides an in-depth assessment of various behavioral factors that can act as a barrier to health promotion. In a similar study that used Pender's Health Promotion Model to promote a bicycle safety education program for parents of young children, Lohse found that Pender's framework was helpful in investigating biopsychosocial processes that serve as motivators to participate in health-promoting behaviors. Similar to Lohse's program, the booster seat community coalition requires assessment of both parent and child, and like Lohse states, "Because this theoretical model is applicable across the lifespan, it may be applied to both the child and the parent" (2003). Lohse also found Pender's HPM to be helpful examining prior behaviors and applying this information to how it could potentially affect behavioral health outcomes, which I view as another strength of the HPM. "Studies have indicated that the best predictor of behavior is the same or similar behavior in the past" (Lohse, 2003).

However, one limitation to this framework would be the likelihood and extent of community involvement in rural areas, as financial barriers may play a role in their involvement and commitment. One way that this barrier could be overcome is through seeking and applying for various grants that may be available through the state or government. Lohse also identified limitations in her study regarding bicycle safety and helmet use. Lohse states there could have been response bias, in which "there were concerns that parents might give the socially acceptable answers rather than the most truthful answers" which could influence the components of the HPM and reaching a commitment to health promoting behaviors. This is also something to take

into consideration was asking parents about booster use. It is crucial to have a rapport and ask open-ended, non-accusatory questions regarding the topic.

Part Four: Conclusion

Pender's Health Promotion Model serves as a great foundation to help promote beneficial health behaviors in the community. Upon evaluation of Pender's Health Promotion Model when applied to unintentional injury prevention programs, I found that this framework poses promising evidence to help support their implementation in community settings. This theory is helpful in assessing the success of patients committing to health-promoting behaviors through identifying behavior specific cognitions and affect, along with individual experiences and characteristics.

To reiterate, the purpose of Pender's Health Promotion Model is to "assist nurses in understanding the major determinants of health behaviors as a basis for behavioral counseling to promote healthy lifestyles" (Pender, 2011), while utilizing the concepts of person, environment, nursing, health, and illnesses to help better understand the components of one's individual characteristics and experiences, behavior-specific cognitions and affect, and behavioral outcomes— all of which relate back to health promoting behaviors. Although this model covers complex ideas of behavior, it is easy to understand and follow which is a major strength. Using the HPM as a guide to identify and apply the specific concepts of unintentional injury, children, relationship, safety, and education can be used successfully to create a community coalition campaign for pediatric unintentional injury prevention and booster seat use.

We can conclude there is an apparent need for education regarding unintentional injury prevention in relation to the devastating consequences of motor vehicle accidents (MVA) when children are not properly restrained. This is especially crucial in rural counties across the state of New Mexico. Poor understanding of the purpose of booster seats in school-age children and lack

of access to resources have a devastating impact on pediatric mortality rates and quality of life after being involved in an MVA. “Booster seat use reduces the risk for serious injury by 45% for young children (aged 4–8) years when compared with seat belt use alone” (Centers for Disease Control and Prevention, 2017).

Future health-promotion campaigns and coalitions can be formed through utilizing the concepts and components of the HPM, similar to the booster seat community coalition campaign I designed. The HPM is helpful in identifying unique behavioral aspects of each patient, and how their experiences may affect their participation and motivation of health promoting behaviors. The only limitation I recognized while applying the HPM to my coalition campaign was that I felt the HPM does lack an education component. Although the HPM does an excellent job in identifying major determinants of behavior and its impact on health-promoting behaviors in patients, education is a less involved aspect in this model. I believe that education is fundamental to health promotion and should have a stronger presence. For future use and application to similar scenarios, I hope to see a stronger educational component included or combined into this model. Overall, Pender’s Health Promotion Model should be continued to be used in pediatric outpatient clinical settings.

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