An Exploratory Study of Grade 4 Students' Perceptions of Tobacco Use

By

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A Thesis
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In Partial Fulfilment of the Requirements
For the Degree of

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Dedication

I dedicate this thesis is dedicated to my family…

My parents, Metro (1929-1995), and Doris Kawulia, who instilled questioning, and determination into my everyday life, and who taught me never to give up.

To my husband, Andrew, and daughter Meaghan, whose love and support allowed me to travel through this journey of inquiry. They wondered if this day would ever come and without them this would not be complete.

Abstract

The purpose of this qualitative study was to explore Grade 4 students' perceptions of tobacco use through the use of drawings and semi-structured individual interviews. Seventeen students from two elementary schools, 8 males and 9 females, between the age of 9 to 10 years participated in the study. The use of drawings in combination with individual semi-structured interviews through which the each student described the meaning of his/her drawing enhanced the richness of the data. The constant comparative method of data analysis was employed to unearth five themes of the study. The themes of the study were exemplified in the drawings and "thick description" using verbatim quotations. The five themes which emerged from the data include 1) Activities Associated with Tobacco Use, 2) Causal Links Between Ill Effects and Tobacco Use, 3) Origins of Children's Perceptions, 4) Emotions Associated with Tobacco Use, and 5) Valuing of Smoking and Smokers.

The study demonstrates an effective strategy for eliciting children's health perceptions. Implications for nursing practice and health education are identified, in particular, the prevention of misinterpretation and emotional discomfort children may experience when they are exposed to significant others who practice unhealthy lifestyle choices. Further studies that explore children's perceptions of healthy lifestyle choices through the use of drawings and semi-structured interviews are recommended.

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Chapter One

Overview of the Study

Introduction

Smoking is a pediatric epidemic. It is the number one cause of preventable death in the world. The use of tobacco products results in more deaths than traffic accidents, illicit drug use, murder, alcohol use, suicide and acquired immune deficiency syndrome (AIDS) (Elders, Perry, Eriksen, & Giovino, 1994; Haines, 1989; Health Canada, 1996; Merrill, 1995; World Health Organization, 1996). Based on the consumption of tobacco trends, half a billion people will die prematurely. The impact of smoking in terms of lost human potential is dramatic.

Primary prevention programs are particularly relevant during the school age years when important health behaviors that may persist throughout life, are being established (Graham & Uphold, 1992; Doueck, Schinke, Gilchrist & Snow, 1988; McGurie, 1981; Schinke & Gilchrist, 1986). Children require knowledge and skill to make healthy lifestyle choices. Multiple studies support the results of the 1996 Manitoba Youth Smoking Survey in showing that the onset of smoking behavior leading to tobacco addiction commences in childhood (Brown, Cherry, & Forbes, 1986; Difranza, Norwood, Garner, & Tye, 1987; Jason, Ji, Anes & Birkenhead, 1991; Health Canada, 1996).

Harvey's et al. (1998) survey of 13,177 children and youth ages nine to eighteen enrolled in Manitoba public school system reveals that 47% of females and 51% of males age 9 to 18 years have tried smoking. Twelve percent of all females and eleven percent of all males are regular smokers, smoking at least one cigarette per day. The survey found that 24% of males and 28% of females who tried smoking smoked their first cigarette by 9 years of age. The

greatest percentage of males (20%) and females (23%) in the study experimented with their first cigarette at the age of 12. Twenty seven percent of all females and 22% of all males who have tried smoking are regular smokers, smoking more than one cigarette per day. Studies indicate that elementary school children are already trying and using tobacco products (Ganley, Young, Denny, & Wood, 1998; Harvey, Boyd, Kowalchuk, Harrigan, Blanchard, & Doig, 1998). Early education and intervention are imperative if these children are to understand the risks they are taking by smoking. Smoking behaviors cannot be understood without an examination of knowledge, perceptions, and decision making skills of children prior to the age of 11 years (Health Canada, 1996).

School age children are the major recipients of primary prevention school based programs, yet they are largely excluded from discussions about planning, strategy development, and implementation. Children's perceptions are active and provide the world around them with insight into their thought processes related to specific subject material. Children develop perceptions as a result of multiple stimuli in their environments. These stimuli influence what information the child selects as being meaningful (Clement, 1978). The researchers' and teachers' awareness of children's perceptions enhances their understanding of the relationship between children's awareness of information in primary prevention programs, their behaviors, and their thoughts that support their behaviors (Henke, 1995). Studies reveal that insight into children's perceptions are central to the success of school based primary prevention programs (Pridmore & Lansdowne, 1997; Davis and Jones, 1996).

Statement of the Problem

McGuire (1981); Schinke and Gilchrist (1986), and Doueck, Schinke, Gilchrist and Snow (1988) identified the need for smoking prevention programs in elementary school. Children require knowledge and skills to make healthy lifestyle choices. Communication of information promoting the continuation of healthy lifestyle choices is more effective than attempts to induce smokers to make the healthy lifestyle choice to quit smoking (McGuire, 1981). Effectiveness of primary prevention programs is based on whether or not the program meets the recipient's needs and is acceptable to what the recipient perceives to be important (Redman, 1997; Gronlund, 1985). The Lung Associations and Cancer Societies in Canada and the United States promote primary prevention school health programs that focus on the prevention of tobacco use among the youth in these countries. Yet there is limited research related to children's perceptions of tobacco use. The exploration of Grade Four students' perceptions of tobacco use is supported by the literature (Wagner, Ejlali & Wilson, 1996; Bathel, McLean, & Atwood, 1994; Thompson, 1992). These studies reveal that children's perceptions have a great impact on the effectiveness of school based primary health prevention activities. The Manitoba Lung Association's Lungs For Life School Based Program is one of these programs. It is a primary prevention program that focuses on preventing the use of tobacco products by children in Manitoba. The program is introduced to elementary school children in Grade Four. Thus the focus of this study will be the exploration of the perceptions of this population.

Age, gender, and environmental factors are described as being the main factors that influence the development of children's perceptions (Armstrong, deKlerk, Shean, Dunn, & Dolin, 1990; Barnett, Quackenbush, & Steven, 1996; Bibace & Walsh, 1981; Flynn, Worden,Secker-Walker, Badger, & Gwller, 1995; Kelder, Perry, Peters, Lytle, & Klepp, 1995;

Norland, & Kroll, 1996; Patton & Carlin, 1998). Perception results from an active process of receiving sensory input, organizing the information received, making a judgement, and responding to the stimuli. An individual's previous experiences, and cognitive and emotional development influences his/her perceptual development. (Clement, 1978; Bibace & Walsh, 1981). Further studies also identified the media as one of the factors the influence children's perceptions (Henke, 1995; Kennedy, Strzempko, Danford, & Kools, 2002; Sargent, Tickle, Beach, Dalton, Ahrens, & Heatherton, 2001).

Grade Four students are generally between the ages of 9 and 10 years. This developmental cognitive stage, according to Piaget is, 'concrete operations' (Piaget, 1976; Olson, 1992; Thompson & Gustafson, 1999). Children at this stage differentiate between themselves and others. They can distinguish their internal and external selves and speculate on the interior contents of their bodies. Though their focus is on the 'real', they can differentiate between what is real and what is hypothetical (Short, 1991). They can also conceive of the reversal of situations and processes (Walsh & Bibace, 1990). Children understand the world around them in ways that differ from the views of adults. Though children of the same age group may be at slightly different developmental stages, these levels of ability in normal children are highly correlated. Intellectual development moves from concrete to abstract. During the preschool years, children are far less in touch with the reality of abstract thoughts (Short, 1991). Preschool children are much more egocentric, whereas school-age children have a more complete, comprehensive and discrete understanding of the parts of the problem or phenomenon (Redman, 1997; Woodgate & Kristjanson, 1996). During the early school years children become industrious and begin to take risks or become initiative takers (Redman, 1997). Experimentation with tobacco products often begins prior to the fourth grade or the age of 9 or 10 years (Harvey,

1998; Ganley et al., 1998). Experimentation is influenced by a child's previous opportunities for initiative taking, his or her gender, and parental and family influence (Edwards, Elder, de-Moar, Wildey, Mayer, & Senn, 1992)

Matthys and Cohen-Kettenis (1994) examined the similarities and differences of perceptions of boys and girls. The study discovered that boys pay more attention to a person's achievements, preferences (likes), and aversions (dislikes), and personality characteristics. Girls' descriptions were more diverse and complex. Females paid more attention to background information that might influence certain behaviors. Powlishta (1995) revealed differing perceptions of masculine and feminine characteristics displayed by individuals. Boys' and girls' positive and negative ratings related to sex-differences were virtually absent. The results of the study revealed that both boys and girls assigned more positive traits to their own sex than to the other. The 1996 Manitoba Youth Smoking Survey revealed that after the age of 15 years, more female than male regular smokers believe that smoking helps people stay slim. Both males and females between the age of 11 and 15 years think smoking is cool (Harvey et al., 1998). Kelder, et al. (1995) identified that girls are more receptive than boys to the social influence of health education. It is possible that receptivity to the health care system begins early in life (Spitzer & Cameron, 1995). These gender similarities and differences reinforce the need for future studies to explore gender differences and similarities when studying Grade Four students' perceptions of tobacco use.

Research for the past two decades (Biback & Walsh (1981); Norland & Kroll, 1996; Harvey et al., 1998), identifies the significant impact environmental factors have on children's lifestyle choices and health behaviors. As previously stated, perceptions are influenced by previous experience and the social culture in which an individual lives. Perception development

is an interactive process. Norland and Kroll (1996) discovered that youth, who are living in households where a member of the family participated in the production of tobacco products, were more likely to be early or frequent users of tobacco. Children's abilities to process and differentiate information that results in the development of their perceptions is greatly influenced by their level of familiarity, social interactions, and personal experiences (Matthys & Cohen-Kettenis, 1994). Barnett, Quackenbush, and Steven (1996) demonstrated a positive correlation between parental action and high school and college students' expected use of similar actions was evident. Harvey et al. (1998) identifies the strongest personal and demographic predictor variables of children becoming regular smokers as early experimentation with tobacco products and interaction with a sibling, friend or parent who is a regular smoker. Studies by Rigby (1993) and Patton and Carlin (1998) consistently describe the significant impact the child's environment has on his/her perceptual development. The majority of the literature supports the belief that family members' perceptions influence children's perceptions and behaviors. Therefore the impact of whether or not a child lives in home where tobacco products are used or has friends who utilize tobacco products is well supported.

Significance of the Study

The absence of research exploring Grade 4 students' perceptions of tobacco use exemplifies the need for the study, considering the fact that the Lungs are For Life Program is initiated at this grade level. The lack of research in this area results in a lack of insight into children's perception related to tobacco use. Knowledge of the Grade 4 students' perceptions is This, lack of understanding could result in the ineffectiveness of school based primary prevention initiatives related to tobacco use by children. Findings from this study will add to the

knowledge of factors that impact the success of primary prevention school based programs. This knowledge can promote increased success of health education programming for children.

Statement of Purpose

The purpose of this descriptive study was to explore Grade 4 students' perceptions of tobacco use through the use of drawings. The research will gain knowledge of the meaning the research participants give to their individual drawings of tobacco use. These descriptions and their meanings will be useful in designing future research. The focus of this study is exploration as opposed to generation of grounded theory or theory testing (Polit & Hungler, 1995). The study is designed to learn more about Grade 4 students' perceptions about tobacco use as a beginning step to explore how congruent the primary prevention programs for Grade 4 students are with the students' perceptions and appropriately meeting the needs of this age group (Wagner, Ejlali, & Wilson, 1996).

Research Question

For the purposes of this study, the following research question was addressed: What are Grade Four students' perceptions of tobacco use? The research question was broadly stated to complement the exploratory-descriptive design of this study and to capture the full range of perceptions of tobacco use.

Assumptions Underlying the Study

The major theoretical assumptions underlying of this study are:

1. Grade 4 students are able to verbally describe the meaning of the constructs in their diagrams of tobacco use.

2. Grade 4 students' perceptions of tobacco use can be ascertained through their descriptions of their personal drawings about tobacco use.

3. School environment is a neutral environment that is conducive to children sharing their perceptions.

4. All people are unique and each will have different perceptions of tobacco use, depending upon the child's developmental age, gender, and social interactions within his/her environment.

Definition of Terms

To assist with conceptual clarity of the study the following definitions will be used to operationalize the study variables.

Grader Four Students

Grade Four students are children between the ages of 9 and 10 years. They can distinguish their internal and external selves, and speculate on the interior contents of their inner bodies and level of health. Children of this age group can differentiate between what is real and what is hypothetical. As well, they can differentiate between themselves and others (Walsh & Bibace, 1990).

Perception

Perceptions result from an active, interactive and interpretive process human beings progress through when they encounter an object or an action (Blumer, 1969;Clement, 1978). An individual receives sensory input, organizes the information, and makes a judgement about the meaning of the information and responds. Perception is the meaning an individual gives to

sensory input. The same sensory input may have different meaning to different individuals (Blumer, 1969). The individual's previous experiences and the individual's emotional and cognitive level of development greatly influence the processing of this information and the meaning given to the stimuli (Clement, 1978; Vernon, 1966).

Tobacco Use

Tobacco use includes the use of any nicotine-containing tobacco product, such as cigarettes, cigars, and smokeless tobacco products, as well as ceremonial usage of tobacco as a traditional source of healing.

Environmental Factors

Environmental factors are circumstances within the immediate environment that exert an influence on the child's perception of tobacco use. In this study environmental factors will include the family (parents and siblings), friends and members of the extended family, exposure to tobacco company and Health Canada advertisements related to tobacco use, and the individual's previous experience with tobacco products. The literature strongly supports the impact of environmental factors on the development of children's perceptions (Barnett et al., 1996; Biblace & Walsh, 1981; Harvey et al., 1998; Norland & Kroll, 1996; Rigby, 1993; Patton & Carlin, 1998).

Primary Prevention

Primary prevention activities focus on controlling an incidence or preventing the occurrence of a health problem before the action begins (Stachtchenko & Jenicek, 1990).

Conceptual Framework

The exploration of children's perceptions lends itself nicely to the use of symbolic interactionism (S.I.) as the theoretical framework for this study. According to this theory, the world we live in is subjective, a world, in which each person has unique interactions with people, him/herself, and his/her environment (Blumer,1969; Chenitz & Swanson, 1986). Symbolic interaction contains five concepts: the self, the act, social interaction, objects, and joint action. The concepts and premises of symbolic interactionism are congruent with the process of perceptual development. Each of these concepts, as well as the three premises of the symbolic interaction, will be discussed throughout this document.

The concept of self is unique only to humans. By possessing a self and the ability to think abstractly, human beings are provided with a mechanism of self interaction with which to develop perceptions and meaning of the world around them (Blumer, 1969). It is through reflection that a person thinks about an action, person or event and determines the significance of the action, person or event. It is through interaction with a student's self that the researcher will gain an understanding of the student's perception of tobacco use.

The second concept is the act. It is through a process of self interactions that human action or perceptual development is formed. An individual must identify what s/he perceives as relevant or meaningful before an action will occur. In this study, it is anticipated that each student will have observed the use of tobacco products, and judged and interpreted his/her experience (Blumer, 1969; Chenitz & Swanson, 1986). The student's interpretation and judgement of sensory input will result in the development of a perception of the sensory input.

Thus the examination of the students' past experiences with and exposure to tobacco use in future studies is well supported by the literature.

Social interaction is the third concept of symbolic interactionism. There are two types of social interaction, "non symbolic interaction" and "symbolic interaction"(Blumer, 1969). Non-symbolic interaction is a response to a gesture or action made without consciously interpreting the gesture or act (Blumer, 1969). A child's response to tobacco advertisement at sporting events is an example of non-symbolic interaction. Symbolic interaction is a developmental process (Blumer, 1969; Chenitz & Swanson, 1986). There is constant interpretation between the participants involved in social interaction. "The participants in it have to build up their respective lines of conduct by constant interpretation of each other's ongoing lines of action" (Blumer, 1969, p. 66). Parental influence on a child's perception of tobacco use is an example of this type of interaction.

The fourth concept is that of "object" (Blumer, 1969). The object of this research study is Grade Four students' perceptions of tobacco use. The meaning students' give to tobacco use will be explored. A student's action toward the use of tobacco products is dependent upon the meaning tobacco use has for him/her. According to the theoretical framework of symbolic interactionism, the same object may have different meaning for different individuals (Blumer, 1969).

The final concept of symbolic interactionism is "joint action". Joint action is the "interaction in which people are fitting together their acts" (Charon, 1985, p. 155). Without actions, any structure of relations between the student and the teacher promoting primary prevention of tobacco use among children is meaningless (Blumer, 1969). It is anticipated that

understanding of children's perceptions of tobacco use will enhance the effectiveness of school based primary prevention initiatives. Effectiveness will be enhanced through improvement of program design, relevance of program materials or enhanced teaching strategies.

The three premises of the S.I. theory are:

1. "Human beings act toward things on the basis of the meanings that the things have for them" (Blumer, 1969, p. 2). Thus it is believed that the meaning a student attaches to tobacco use will influence whether or not the student will utilize tobacco products, or whether or not the student will find primary prevention initiatives meaningful.

2. "The meaning of such things is derived from or arises out of, the social interactions that one has with one's fellows" (Blumer, 1969, p. 2). Parents, siblings, and friends use of tobacco products and the meaning these individuals place on the use of tobacco greatly influences Grade Four students' perceptions of tobacco use. If significant others display avoidance of tobacco use and express the negative aspects of tobacco use the student's perception will probably be negative. If the parents, siblings and friends express the positive experience such as healing practices or feelings of decreased anxiety or stress and consistently use tobacco products in the child's presence the child's perception will most likely be positive.

3. "These meanings are handled in, and modified through, an interpretive process used by the person dealing with the things he encounters" (Blumer, 1969, p.2). A child's age and developmental stage and one's ability to use abstract thought greatly influence the student's perception of tobacco use. An individual receives sensory input, organizes the information, and makes a judgement about the meaning of the information and responds. Perception is the meaning the individual student gives to tobacco use.

Interaction is a process that takes place between one person, two people, a group of people or society. Through interaction, meaning is placed on the object and actions. In this study the exploration of Grade Four students' perceptions of tobacco use, it is important to be aware of the various interactions that affect children's perceptions.

Organization of the Study

Chapter One provides an introduction to the study and outlines the purpose and need to proceed with the study. It also describes the conceptual framework to be used in the exploration of Grade Four students' perceptions of tobacco use. Chapter Two will provide a literature review of current issues and research studies involving children's perceptions. It will discuss the influence of perception on learning, elements of effective primary prevention programs, exploration of factors influencing the development of perceptions and children's perceptions of health related topics and more specifically tobacco use. The literature review will also describe research findings and the strengths and limitations of each research study. The three premises of symbolic interactionism will provide the organizational structure of this chapter. Chapter Three will describe the research design, including research methods to be utilized, the criterion for sample selection, the setting where the research will occur and ethical considerations related to this area of research. The research findings of Grade Four students' perceptions of tobacco use will be disclosed in Chapter Four of this research study. Chapter Five will continue with a discussion of the research findings in relation to the conceptual framework of symbolic interactionism and previous nursing and education research studies from the literature review.

Summary of the Chapter

Chapter One has identified the absence of research in the area of children's perceptions of tobacco use. The absence of this knowledge impedes the effective development of primary prevention school based programs. Youth in Manitoba continue to develop addictions to tobacco products (Harvey et al., 1998). The need for nursing knowledge related to children's perceptions is evident. The purpose of the study is to explore the perceptions of students who are being introduced to primary prevention programs related to tobacco use.

Chapter Two

Literature Review

The review of the literature provides the foundation for the research study (Polit & Hungler, 1995). A review of the literature from 1981-2002 discussing perception, perceptual development, children's perceptions and tobacco use and smoking was conducted. The computer assisted literature search unearthed greater than ten thousand articles that described trends of tobacco use, the impact of tobacco use on personal health, growth of tobacco, ingredients of tobacco products and information about tobacco companies and government policies related to the production and sale of tobacco products. Articles that discussed tobacco production, tobacco companies and government policies related to the production and sale of tobacco products were not included in this study as they had no direct relationship to children's perceptions of tobacco. Two hundred and eighty nine articles describing children's perceptions, and perceptual development were reviewed. The foci of the literature search were limited to school-aged children's perceptions of tobacco use and health related issues, incident of tobacco use among children, evaluation of school based primary prevention programs about smoking and drug use, and essential elements for effective primary prevention programs for children related to smoking and drug use.

The exploration of articles related to school based primary prevention initiatives pertaining to smoking, elements of effective primary prevention or school health programs, and children's perceptions disclosed limited research pertaining to children's perceptions of tobacco use. The literature review also revealed the limited use of qualitative research designs in describing children's perceptions of health related topics, and in describing the effectiveness of

school based primary prevention programs. The majority of the studies identified in the literature review focussed on effectiveness of primary prevention programs with adolescents, with a few studies examining the impact of school based primary prevention on children in Grade 5 and 6. There are no qualitative research studies that explore the perceptions of tobacco use with children in the primary grades of Grade 4 or less. These findings identify a major gap in knowledge related to children's perceptions. Wood (1988) questions how adults can determine whether or not instruction is sensitive to a child's zone of learning without having knowledge of his or her perception. The rising incidence of children using tobacco products, with up to 28% of males and 16% of females beginning to experiment with tobacco prior to Grade 4 (Harvey et al., 1998; National Clearinghouse on Tobacco and Health Canada, 1996), exemplifies the need to explore Grade 4 students' perceptions of tobacco use. Effectiveness of school based primary prevention programs is based on knowledge of the learners' perceptions (Barthel et al., 1994; Davis & Jones, 1996; Wagner et al., 1996; Wood, 1988).

Five major categories were identified from the review of the literature and are reported here: (1) Influence of perception on learning; (2) factors influencing children's perceptions; (3) elements of effective school based primary prevention programs; (4) children's perceptions of health related topics; and (5) children's perceptions of tobacco use. The literature review will explore the relationship between these five categories and the three premises of the conceptual framework of symbolic interactionism. Research findings related to factors influencing perceptual development and child behavior, and children's perceptions of health related topics will be unveiled. Polit and Hungler's (1995) book will be used as a framework for the examination of research design, and the identification of strengths, and limitations of each study included in the literature review.

First Premise of Symbolic Interactionism

The first premise of symbolic interactionism states that the meaning a person attaches to something will influence how s/he acts toward it (Blumer, 1969). Relevant literature pertaining to the first premise of symbolic interactionism included literature that discussed perceptual development in children (Clement, 1966; Frantz, 1966; Short, 1991; Vernon, 1966); how children learn (Frantz, 1966;Wood, 1988), the influence of gender on child's perception and behavior, and elements of effective school based primary prevention programs.

The Influence of Perception on Learning

The perceptions of young children generally are global, diffuse, and inaccurate (Biback & Walsh, 1981; Short, 1991;Vernon, 1966). As children mature, they are better able to analyze perceptual material, differentiate its parts and determine what is relevant to the situation (Vernon, 1966). This process allows children to think into the future and develop perceptions that influence their lifestyle choices (Biback & Walsh, 1981; Frantz, 1966; Vernon, 1966). Perception, according to Fantz (1966), means more than the presence of sensory capacities; it implies that the person uses his/her sensory capacity to direct his/her behavior while interacting with his/her environment.

Children are not passive, nor always compliant in learning (Wood, 1988). According to Wood, children construct their knowledge by acting upon objects within their environment. Social interactions with adults and peers facilitate learning and influence a child's decision making. A child's exposure to other points of view and to conflicting ideas challenges him/her to rethink or review his/her own ideas. Their perceptions are a result of receiving information,

examining this information, and challenging their ideas about the information (Clement, 1978; Frantz, 1966). Children have to be active and constructive in order to develop an understanding of the world around them and make individual lifestyle choices. Perceptual activities take time, demand guided selection, memory, and interpretation (Frantz, 1996). The internalization of information results in the development of perceptions that influence the lifestyle choice children make (Biback & Walsh, 1981; Fantz, 1966; Wood, 1988). The determinants of health promotive behaviors include an individual's perception of vulnerability, ability to participate in the health promotive behavior, and the perceived benefit of the behavior (Palank, 1991). From the review of the literature the researcher concludes that knowledge of children's perceptions about tobacco use is required for primary prevention initiatives to effectively prevent children from becoming addicted to tobacco products.

Factors Influencing Children's Perceptions

Age, gender, and environmental factors are described as being the main factors influencing the development of children's perceptions (Armstrong, deKlerk, Shean, Dunn, & Dolin, 1990; Barnett, Quackenbush, & Steven, 1996; Biback & Walsh, 1981; Flynn, Worden,Secker-Walker, Badger, & Gwller, 1995; Kelder, Perry, Peters, Lytle, & Klepp, 1995; Norland, & Kroll, 1996; Patton & Carlin, 1998). Perception results from an active process of receiving sensory input, organizing the information received, making a judgement, and responding to the stimuli. An individual's previous experiences and cognitive and emotional development influences his/her perceptual development. (Clement, 1978; Biback & Walsh, 1981).

Experimentation is influenced by a child's previous opportunities for initiative taking, his or her gender, and parental and family influence (Edwards, Elder, de-Moar, Wildey, Mayer, & Senn, 1992). Experimentation with tobacco products begins prior to the fourth grade or the age of 9 or 10 years (Harvey et al., 1998; Ganley et al., 1998). Harvey et al. (1998) found that 24% of males and 28% of females surveyed who tried smoking smoked their first cigarette by the age of 9. Ganley's et al.(1998) survey of 550 elementary school children in Grade 4 found that 16% tried cigarettes or smokeless tobacco products while 9.5% more of the group were planning to try some form of tobacco in the near future. The large sample size, participant confidentiality, and consistency in data collection during each of these studies promote increased reliability and validity of the research findings.

Gender

Personal lifestyle choices are not simply a matter of informed choice but are influenced by complex processes of societal opportunities, individual interpretation, and group specific attitudes that can be related to a child's gender. Abernathy and Bertrand (1992) contend that school based primary prevention will have to consider targetting males and females in different ways. The discussion of the following research studies explores the similarities and differences between males and females related to health- related behaviors and perceptions.

Eight research studies were located that measured gender similarities and differences related to health perceptions and behaviors (Abernathy & Bertrand, 1992; Ganely et al., 1998; Graham & Uphold, 1992; Harvey et al., 1998; Kelder et al., 1995; Matthys & Cohen-Kettenis, 1994; Powlishta, 1995; Spitzer & Cameron, 1995). Five of the eight studies found there was a significant difference between perceptions and health behaviors of males and females

(Abernathy & Bertrand, 1992; Ganley et al., 1998; Kelder et al., 1995; Matthys & Cohen-Kettenis, 1994; Spitzer & Cameron, 1995). Two of the eight studies identified both similarities and differences between boys' and girls' perceptions of health and health related behaviors (Graham & Uphold, 1992; Harvey et al., 1998). In contrast to the previous research studies, Powlishta's study (1995) found gender differences on negativity and positivity ratings of personality traits to be virtually absent.

Abernathy and Bertrand (1992) and Kelder et al. (1995) examined the impact of school based primary prevention programs related to tobacco use. The four-year evaluation of the Peer Assisted Learning (PAL) prevention program included a total of 7,508 students in Grade 6 classes from 190 schools in Calgary, Alberta (Abernathy & Bertrand, 1992). Kelder's et al. (1995) longitudinal study included the tracking of 2,376 student from one of the Minnesota Heart Health Program intervention communities and its matched pair. Both studies utilized self-report health behavior questionnaires to collect the data for each of their individual studies. Both studies discovered significant differences between genders and healthy lifestyle practices. Kelder and colleagues discovered significant positive differences between genders on physical activity ($p<.001$) and food preferences ($p<.001$), with females in the intervention group reporting significantly greater hours of exercise per week and significantly healthier food choices. The effects of the intervention on smoking by gender were less apparent ($p<.04$). Abernathy and Bertrand's study revealed that the PAL program did have a significant effect in deterring the uptake of smoking among males across all three post-tests [Post-test 1, x (1) = 14.06, $p<.001$; Post-test 2, x (1) = 5.07,$p<.05$, Post-test 3, x (1) = 6.36, $p<.05$]. Interestingly, the comparable effects for females were not significant [Post-test 1, x (1) <1, Post-test 2, x (1) <1, Post-test 3, x (1) <1]. These research findings offer evidence that boys are more receptive than girls to social

influence of health education and it is clear that school based primary prevention will have to consider targetting males and females in different ways (Abernathy & Bertrand, 1992; Kelder et al., 1995).

The use of a longitudinal study design (Kelder et al., 1995; Abernathy & Bertrand, 1992) examining the impact of primary prevention programs on health behaviors increase the reliability of the findings of their studies. Conversely, the use of self-reported data collection tools possesses both strengths and limitations. The strengths of such tools include the efficiency of collecting research data and the ability of a single researcher to independently complete the data collection. A limitation to these studies is that self-reports increase the risk for response bias. The respondent has knowledge of the objective of the primary prevention program and may respond to the question with the answer that the researcher wants to hear, not with the truth. The threat of maturation is always present in longitudinal studies and cannot be controlled.

Ganley et al. (1998) surveyed 451 students from 13 different elementary schools in Northwest Arkansas. This study discovered that tobacco knowledge, attitude, and behavior differed significantly by gender (MANOVA $F= 9.31$, $p<.001$). The study found that boys smoked or said they would try smoking significantly more often than girls. The data collection tool was reviewed by an expert panel, checked for internal consistency, and pilot tested on 455 Grade 4 students. The internal consistency (coefficient alpha) for knowledge was .679, for attitude items was .764, and .693 for the behavior items. The sample size was adequate and there is heterogeneous which increases the generalizability of the findings.

Matthys and Cohen-Kettenis (1994) explored gender similarities and differences in grade 3 to 6, boys (n=254) and girls (n=254) perceptions of a person through the use of free

description. Free description allows the research participant to describe his/her perception in writing or with the use of diagrams. This method of data collection is used to study the cognitive-developmental perspective of children. Data were analyzed by assigning each statement of the description to 1 of 10 categories according to content. Matthys and Cohen-Kettenis found that boys paid more attention to achievement, preferences (likes), and aversions (dislikes) and personality characteristics (how good or bad a person is). Girls' descriptions were more diverse and complex. Females paid more attention to background information that might influence certain behaviors.

The findings of these research studies clearly identify the need for school based primary prevention programs to consider targeting males and females in different ways. The use of interview and free description allows the child to express himself/herself in greater depth and decreases the risk for misinterpretation of data. The consultation process with experts in the field of children's health strengthens the studies in promoting appropriateness of interview questions and in limiting interviewer bias. These strengths support the use of drawings and free description in exploring Grade 4 students' perceptions of tobacco use. Free expression allows the participants to express themselves and to interpret their own pictures, rather than having the researcher interpret their pictures for them. Thus misinterpretation is limited.

The study of school-aged children's perceptions of mental illness exemplifies the impact of age and gender on children's ability to identify and classify deviant behavior (Spitzer & Cameron, 1995). This study unearthed the finding that boys [$F=4.036$ (2d.f.), $p=.049$] were better able to identify deviant behaviors than girls and that Grade 4 students [$F=6.841$(2 d.f.), $p=.0327$] had the best ability to classify deviant behavior, compared to students in Grade 1 and 7.

A multi-method approach combining qualitative and quantitative techniques was used to collect and analyze data. The use of vingettes allowed for experimental control, while at the same time permitted participants to respond in his or her own words during the interview. The use of both qualitative and quantitative methods promoted the strength of each of the research designs, while at the same time reducing the limitations of each method.

A study by Graham and Uphold (1992) used an age appropriate interview schedule to explore the overall health perceptions and behaviors of 83 children between the ages of 6 and 12 years. The study identified that both boys and girls viewed their overall health similarly. Ninety percent of both the girls (n=38) and boys (n=36) described themselves as being in good health. The majority of participants did not have any chronic illness, nor did they take regular medication for health problems. The findings of the study demonstrated that both genders are knowledgeable about the management of simple injuries and how to report an emergency. However, nutrition was identified as an area of concern. Ten percent of the children did not eat breakfast and over half of the 83 participants were eating snacks with empty calories. Conversely, there was a significant difference ($x = 4.36$, $p < .05$) between boys and girls related to the area of dental health. These results are in contrast to the Lewis and Lewis (1989) who found girls at all ages were more frequent health care users than boys and had more vague symptoms and less favorable perceptions of their health status (cited by Graham & Uphold, 1992).

The 1996 Manitoba Youth Smoking Survey surveyed 13,177 students in Manitoba related to their smoking behavior by gender and age (Harvey et al., 1998). The survey also identified predicting factors associated with children and youth smoking behaviors. The 1996 Manitoba Youth Smoking Survey revealed both similarities and differences between the perceptions of males and females about tobacco use. It was found that both girls and boys

between the age of 11 and 15 years thought smoking was cool, whereas after the age of 15 years, more female than male regular smokers believe that smoking helps people stay slim. Questions used on the survey were taken from the Smoking Behavior of Students (Grade 3-12) in Manitoba Public Schools and the 1994 Statistics Canada Youth Tobacco Surveys that provide credibility to the reliability and validity to the research findings. The large sample size and the variation of locations increase the generalizability of research findings.

Powlishta (1995) study surveyed 167, 8 to 10 years old evaluations of 48 personality traits displayed by individuals in terms of masculinity, femininity, and positivity versus negativity. The study examined gender bias in children's perceptions of personality traits. One hundred and sixty seven third and fourth grade students (n=81 boys, 86 girls), aged 8 to 10 years participated in the quantitative study. The majority of the students were Caucasian. The students completed one of the two versions of a questionnaire asking them to rate the personality traits according to whether they believed them to be either masculine or feminine, and positive or negative in nature. The study found that gender differences on negativity and positivity ratings of personality traits were virtually nonexistent. A second finding of the study was that children's ratings reflected the influence of stereotypic knowledge and bias favoring their own gender. The more positive a trait was rated, the more it was considered to be typical of a child's own gender. A limitation of Powlishta's (1995) study was the lack of information related to the internal consistency of the data collection tool. The fact that the survey was previously used in other studies suggests that it is reliable.

Elements of Effective School Based Primary Prevention Programs

Six studies examining the elements that promote effective primary prevention programs in schools were located (Clubb, 1991; Dalis, 1994; Dusenbury & Falco, 1995; Glynn, 1989; Merrill, 1995). The Framework For A Vision of Healthy Child Devleopment in Manitoba (1993) identified the need for effective primary prevention programs in Manitoba schools. Studies affirmed the belief that education and health were intertwined in influencing the lifestyle choices of children (Uphold & Graham, 1993; Wood, 1988).

In examining the elements of effective school based primary prevention programs, all the authors (Clubb, 1991; Dalis, 1994; Dusenbury & Falco, 1995; Glynn, 1989; Merrill, 1995) reviewed multiple prevention programs. The review of the prevention programs resulted in the identification of specific elements that promote risk reduction and healthy lifestyle choices made by children.

Effective primary prevention hinges on what to teach and how to teach it (Clubb, 1991; Dalis, 1994). Dunsenbury and Falco (1995) conducted a comprehensive literature reviews of school based drug prevention programs between 1989-1994, similarly, Glynn (1989) reviewed the status of adolescent tobacco use in the United States in the context of the elements of effective school based smoking prevention programs. Comprehensive literature and program reviews were completed. Fifteen leading experts in the area of drug prevention that included the use of tobacco products were interviewed (Dunsenbury & Falco, 1995). The experts were asked, "What do you think we currently know about what works in drug prevention" and "What would you say we know about the effective ingredients of drug abuse prevention programs?" The expert advisory panel was charged with the task of identifying essential elements of a school

based smoking prevention program (Glynn, 1989). The use of expert triangulation reduces the threat of researcher bias and strengthens the credibility of the research findings. The eleven elements of effective school based primary prevention programs from both reviews were recognized as: the need for active participation, the inclusion of information about the social influences on tobacco use, factual information about the physical and psychosocial effects of tobacco use, age appropriate interventions, modelling of refusal and social resistance skills, program specific training for teachers, parental involvement, cultural sensitivity, adequate coverage and sufficient follow-up, and knowledge of student learning needs/perceptions of the topic are crucial to the promotion of effective of school based primary prevention strategies.

All of the aforementioned studies identified that health instruction related to previous learning that promoted active overt student participation was highly effective in promoting positive health behaviors (Clubb, 1991;Dalis, 1994; Dusenbury & Falco, 1995; Glynn, 1989). Primary prevention programs that are developmentally appropriate, focus on the here and now experience, and based on accurate and relevant information are effective in promoting risk reduction and healthy lifestyle choices by students. Following the review of the literature (Clubb, 1991;Dalis, 1994; Dusenbury & Falco, 1995; Glynn, 1989; Palank, 1991; Uphold & Graham, 1993) the researcher contends that an understanding of the perceptions of children participating in primary prevention programs provided teachers with insight into what information students see as relevant. She also believes that active participation and acknowledgement of an individual child's ideas creates a sense of ownership for his or her own learning and lifestyle behaviors. Haine (1989) and McGuire (1981) identified the communication of information promoting the continuation of healthy lifestyle choices as being more effective than attempts to induce smokers to make the healthy lifestyle choice to quit smoking. Povilska et

al. (1998) research findings support the need for collaborative initiatives focussing on a partnership with all the members of the neighbourhood , including children, for the primary prevention initiatives to be effective.

The strengths of the program reviews by Dusenbury and Falco (1995) and Glynn (1989) are the thoroughness of the literature review and the use of expert panels in the collection of data. The literature review provides the foundation for a research study and data with which researchers can compare data. The replication of data strengthens the credibility of the research findings. Collection of data from multiple experts reduces the risk for researcher bias and increases the trustworthiness of the research findings. The limitation of both reviews is the absence of validation of data interpretation with participants. Lack of validation with participants can result in misinterpretation of data.

Clubb (1991) and Dalis (1994) provided a summary of characteristics that promoted improved risk reduction and healthy lifestyle choices made by children in elementary school. These summaries disclosed student values and perceptions lay the foundation for the healthy lifestyle choices, actions, judgements and decisions children will make in the future. Thus the importance of the exploration of Grade 4 students' perceptions of tobacco use is evident. Threats to the credibility of the research include the subjective nature of the summaries/data and the uncertainty of the sample size and number of programs reviewed. Trustworthiness of the research findings is also threatened by researcher bias. Neither study utilized experts in collection or validation of data. However, the identification of the social learning theory as the conceptual framework for both studies increases the credibility of the study. Social learning theory is a well accepted conceptual framework in the area of program evaluation (Stachtchenko & Jenicek, 1990).

Summary

The review of the literature related to articles concerning children's perceptions and actions demonstrates the strong influence of perception on a child's actions. The identification of active participation and inclusion of children's perceptions in primary prevention programs as an essential element of effective primary prevention strongly supports the need for research of Grade 4 students' perceptions of tobacco use. The results of studies related to the influence of gender on healthy lifestyle choices and behaviors are inconsistent. The contradiction between results of the aforementioned studies and the identification of knowledge of children's perceptions as an element of effective primary prevention reinforce the need to studying Grade 4 students' perceptions of tobacco use. These findings also support the need for a future study to explore whether or not gender influences children's perceptions of tobacco use.

Second Premise of Symbolic Interactionism

The second premise states it is through social interaction that the meaning of things is derived (Blumer, 1969). Past experience and social culture influence the perceptual development of children. Social culture includes the influence of family members and peers, as well as the influence of media on the development of perceptions. Perception development is an interactive process between individuals and elements in one's environment (Clement, 1966). Multiple researchers discovered that the social culture in which an individual lives influenced his/her perception of sensory input and choice of health behaviors (Armstrong et al., 1990; Barnett et al., 1996; Biblace & Walsh, 1981; Doueck et al., 1988; Elders et al., 1994; Flynn et al., 1995; Flynn et al., 1992; Gillis, 1994; Harvey et al., 1998; Kandel, 1986; Norland & Kroll, 1996; Schooler, Feighery, & Flora, 1996; Tulley & Chui, 1998; Wilson & Testani-Dufour, 1993). Development

of perceptions is greatly influenced by their level of familiarity with information or a behavior, social interactions, and personal experiences.

Impact of Social Culture on Perceptual Development

External environmental variables influence the development of children's perceptions and the acquisition and demonstration of health behaviors (Henke, 1995). The research literature exemplifies the influence of social culture/environmental factors on the development of children's perceptions and healthy lifestyle behaviors. Social culture includes the influence of family (parents and siblings), friends, and members of the extended family on the perceptual development of children (Barnett et al., 1996; Dickie & Eshleman, 1997; Doueck et al., 1988; Gillis, 1994; Harvey et al., 1998; Kandel, 1986; Patton & Carlin, 1998; Rigby, 1993; Wilson & Testani-Dufour, 1993). Other authors discuss the influence of mass media (Armstrong et al., 1990; Elders et al., 1994; Flynn et al., 1995, 1992; Schooler et al., 1996) and the source of employment (Norland & Kroll, 1996) as environmental factors which shape children's perceptions and influence their lifestyle choices. All of the sixteen research studies identified the social environment as greatly influences one's perceptions and lifestyle choices. The interactions between parents and their children have a significant influence on the lifestyle choices they will make later in life.

Fourteen research studies were located that examined the influence of a child's social environment on his/her development of perceptions and lifestyle choices. Multiple studies investigated the influence of family on how children make healthy lifestyle choices (Doueck et al., 1988; Gillis, 1994; Harvey et al., 1998; Patton & Carlin, 1998;Sargent & Dalton, 2001). Further studies identified the strongest personal and demographic predictor variables of children

becoming regular smokers as early experimentation with tobacco products and interaction with a sibling, friend or parent who is a regular smoker (Armstrong et al., 1990; Doueck et al.; Harvey et al.; Patton & Carlin). Results of the studies indicated a significant correlation between the healthy or unhealthy lifestyle choices of the parent/s and the lifestyle choices made by children and teenagers. Seventy one percent of all females who smoke and 70% of all males who smoke have at least one of a father, mother, sibling, or close friend who is a smoker (Harvey et al.). Sargent & Dalton (2001) study found an inverse correlation with perceived parental disapproval and smoking behavior. Students were equally distributed between Grades 4 –11. The study purports that interventions that promote parental self-efficacy in conveying and enforcing no-smoking policies for their children would result in decreased adolescent smoking. Thus parents significantly influences lifestyle choices made by children and adolescent youth.

Dickie and Eshleman (1997) examined the influence of the parent-child relationship on the children's images of God, whereas the studies by Barnett and colleagues (1996) and Rigby (1993) described the influence of the parent child relationship on the child's perception of parental discipline. Barnett and colleagues found that children tend to favor disciplinary actions that are congruent with their perceptions of their parents' approach to discipline. It was reported that the intention to use specific discipline techniques in the future was related to familiarity and the extent to which their parents have used the same disciplinary techniques. Dickie and Eshleman and Rigby found that the parent-child relationship directly and indirectly assisted in shaping a child's perceptions and their relationship with others.

Studies completed by Johnston, Li, Elder, Feldman, Kelder and Stone (2002), Kegler, Kingsley, Malcoe, Cleaver, Reid, & Solomon (1999), Wilson and Testani-Dufour (1993) discussed the influence of peers on the acquisition and demonstration of healthy lifestyle

behaviors in children and adolescents. Johnson et al. (2002) examined smoking behaviors and predictors from fifth to eighth grades by ethnicity, gender and geographic location. The results of the study support the premise that peers significantly influence lifestyle choices made by peers. The study found the strongest correlate of smoking in eighth grade was having a best friend who smoked. These results are supported by Kelgler et al.'s (1999) study. Focus groups identified that the functional value of smoking for smokers was associated with peers, mood, image, addiction, family and sensory pleasure. The functional value of not smoking was related to sensory aspects, health consequences, physical performance, physiologic response, and family disapproval of smoking. The results of the Wilson and Testani-Dufour (1993) research study support the premise that social interaction significantly influences health behaviors of children. This research study discovered that children are more likely to wear a bicycle helmet if their peers accept this practice and perceive it to "be cool." The use of longitudinal research design is appropriate in examining perceptual development and identifying relationships between multiple variables that influence a person's lifestyle behaviors (Johnson et al., 2002). The limitation of these studies is the influence of maturation on results and the need for prolonged periods of time to complete the study.

Five of the studies explored the relationship between mass media and lifestyle choices made by children (Armstrong et al., 1990; Elders et al., 1994; Flynn et al., 1995;1992; Kandel, 1986; Schooler et al., 1996). These research studies reinforced the belief that advertisement and mass media significantly influence children's perceptions and lifestyle choices. In addition, the studies unearthed a positive relationship between exposure of children to tobacco industry advertisements and the uptake of smoking by children. It was discovered that, after the adjustment for the effects of other variables, there was an excess of 15% prevalence rate of

smoking in females and 15.3% prevalence rate of smoking in males (Armstrong et al., 1990). Once the social influences of peers, siblings and parents were controlled, exposure to cigarette advertising was linked to self-reported smoking behavior. The likelihood of experimentation with tobacco products was between 2.2 to 2.8 times greater for those who had been exposed to tobacco marketing (Schooler et al., 1996). Conversely, Flynn's (1995, 1992) studies exposed the positive impact of the use of mass media to reduce use of tobacco products by teenagers. The relative reduction in smoking prevalence for the media-school group was 31% (Flynn, 1995) and a relative difference between the media-school group and the school-only group of 41% (Flynn, 1992). The 1995 study unveiled the odds ratio for being a smoker in Grades 10 to 12 as 0.62 (95 percent confidence interval; 0.49, 0,78).

The purpose of the Norland and Kroll (1996) study was to describe the prevalence and patterns of smokeless tobacco and cigarette use among adolescents and explore the relationship between tobacco use and the degree of household involvement in growing tobacco. Their survey revealed that students who lived in households that grew tobacco were at greater risk than those who came from nontobacco growing households. It was statistically significant at $p<0.05$, that youth living in tobacco producing households also were more likely to be early and/or frequent users of tobacco.

Fourteen of the sixteen research studies were quantitative in design. Survey methodologies were utilized to explore the influence of social environments on perceptions and lifestyle choices of children and teenagers. The strengths of these studies included use of questionnaires to collect data from a large sample to enhance efficiency, directness, and cost effectiveness. The large sample sizes of [n=2,366 students in 45 schools (Armstrong et al., 1990), n= 13,177 students from in schools from various regions in Manitoba (Harvey et al.,

1998), and Patton's and Carlin's six wave cohort study (n=1,947 secondary school students] increases the generalizability of these research findings. The major limitations of self-reports, and questionnaires include the question of validity and accuracy of self-reports and the risk for response set bias. The reliability and validity of the research findings of studies by Gillis (1994); Harvey et al. (1998); Patton and Carlin (1993); and Rigby (1993), are enhanced with the use of measures that have been previously tested, or have been analyzed statistically and/or reviewed by panels of experts. Gillis's use of methodological triangulation provided qualitative data to enrich the quantitative data and contributed to greater understanding of the variables that promotes healthy lifestyle choices.

Henke (1995) interviewed 83 children between the ages of 3 to 8 years. The study explored children's ability to recognize cigarette brand advertisements. It was discovered that the ability of children to recognize cigarette brand advertisements increased with age. The strength of the studies is the ability of the participants to freely express themselves and for the researcher to verify data collected during the interview to avoid misunderstanding of what was being stated. Difficulties associated with interviewing children are the risk of fear of the researcher/stranger and the threat of collecting incomplete data. The limitation of the studies is the small sample size and the limited ability to generalize to other populations. The researchers' use of familiar environment, their home or school, in which to interview the participants increased participants' comfort levels (physical and emotional) and strengthened the credibility of their studies.

Tulley and Chui (1998) collected a total of 134 anecdotal narratives that described Grade 8 students' perceptions of incidents in which the teacher either effectively or ineffectively managed the situation in the classroom. Anecdotal narratives are similar to free descriptions in

that they allow the participants to express themselves in greater depth, decrease the threat of researcher bias, and misinterpretation of data (Matthys & Cohen-Kettenis, 1994; Pridmore & Lansdown, 1997). Fourteen of the anecdotes from the original 148 subjects were not included as part of the data as they were unclear or provided inadequate information. The use of interviews in combination with free description would strengthen a study by providing an opportunity to both clarify and verify the data collected from the students.

Wilson and Testani-Dufour (1993) effectively utilized information from records to their advantage. The data in the study included statistics for all children ages 2 to 15 years that were admitted to a trauma center within a time frame of 21months. The use of records to gather data pertaining to social influences on children's development of perception and lifestyle behaviors is economical, efficient, and permits an examination of trends over time. The threats to the reliability and validity of the study are selective deposit and selective survival that threatens the completeness of data, and can result in skewing of the research findings.

Summary

It is evident from the research that social interactions significantly influence the perceptions and actions of both children and adults. Personal perceptions and lifestyle choices are dynamic and attention to complex processes of parent-child relationships, the influence of peers and teachers, and the environment in which one's lives requires further examination when investigating children's perceptions of tobacco use. It is an underlying assumption that social culture of Grade 4 students participating in the proposed study will emerge as a factor that influences their perception of tobacco use.

Third Premise of Social Interactionism

The third premise of symbolic interactionism states that the meaning placed on the object by an individual has been derived through interaction the individual has had with him/herself. It is the meaning that guides and forms individual action (Blumer, 1969). Age significantly influences the child's ability to internalize sensory information, interpret the information, develop meaning of the information, and then respond in an action (Clement, 1988). Literature reviewed relevant to the third premise of symbolic interactionism included growth and development, age as a influencing factor in perceptual development, and children's perceptions of health related topics.

Growth and Development of Children

The growth and development of a child greatly influences a child's ability to gather, organize, interpret and act upon information provided in one's environment. Grade 4 students are generally between the ages of 9 and 10 years of age. This developmental cognitive stage, according to Piaget, is 'concrete operations' (Bibace & Walsh, 1981). Children at this stage differentiate between themselves and others. They can distinguish their internal and external selves and speculate on the interior contents of their inner bodies. Though their focus is on the real, they can differentiate between what is real and what is hypothetical (Short, 1991). They also can conceive the reversal of situations and processes (Short; Walsh & Bibace, 1990). Children understand the world around them in ways that differ from the views of adults. Though children of the same age group may be at slightly different developmental stages, these levels of ability in normal children are highly correlated. Intellectual development moves from concrete to abstract. During the preschool years, children are far less in touch with reality of abstract

thoughts (Short). They are much more egocentric, whereas, school-age children have a more complete, comprehensive, and discrete understanding of the parts of the problem or phenomenon (Redman, 1997; Woodgate & Kristjanson, 1996). During the early school years children become industrious and begin to take risks or become initiative takers (Redman). Experimentation with tobacco products begins prior to the fourth grade or the age of 9 or 10 years (Harvey, 1998; Ganley et al., 1998). Experimentation is influenced by a child's previous opportunities for initiative taking, his or her gender, and parental and family influence (Edwards, Elder, de-Moar, Wildey, Mayer, & Senn, 1992).

The structure of children's interests and competence perceptions as described by Tracey and Ward (1998) identified the limited research related to the area. The authors support the voiced concerns of previous authors (Ganley et al.,1998, McGuire, 1981) that children lack the realistic knowledge required to make lifestyle choices. Tracey and Ward discovered children's perceptions of ability grew more accurate form early kindergarten to late childhood. Children interpret sensory input more accurately as a function of cognitive development (i.e., ability to understand more abstract concepts) and social forces (e.g., competition). The key period of development of interest and internalization of information occurs in middle childhood (age 10-13 years). The heterogeneity of the sample, and the sample size of 607 participants, strengthens generalizability of the study conducted by Tracey and Ward. Palmer and Lewis (1976) and Natapoff (1978, 1989) support the findings of Tracey and Ward's study.

Palmer & Lewis (1976) studied the decision making processes children use when making healthy lifestyle choices. The authors discovered a developmental base for children's decision making and their definitions of illness. Palmer and Lewis interviewed 189 children between the ages of 5 and 12 years, and identified grade 3 or 8 years of age as being the critical period of

change for children's health attitudes and beliefs. This period of development corresponds with the concrete operational stage of the Piagetian theory at which time children begin to explore and reason and also begin to understand the concept of cause and effect (Bibace & Walsh, 1981).

Later studies by Natapoff (1978, 1989) explored children's conception of health and how it was influenced by age. She interviewed 245 children to find that health concepts proceed from the specific and concrete to more abstract future oriented interests. Similar to the study of Bibace and Walsh (1981), Natapoff found that children begin to internalize illness at about age 9, these studies found that fourth graders showed a developing concern for their bodies and their health. It appears from the available data that children see health as arising from making specific lifestyle choices related to eating right, exercising and keeping clean (Blos, 1978).

Short's (1991) exploration of children's perceptions of inequality discovered that 8 and 10 year olds were more likely than younger children to think in terms of employment as the chief explanation of disparities in wealth. Children understood the world around them in ways that differed from the views of adults. Though children of the same age group may be at slightly different developmental stages, these levels of ability in normal children are highly correlated. School-aged children are developing their abilities to think in the abstract. The results of this study support the findings of previous growth and developmental studies (Natapoff, 1978; 1989; Palmer &Lewis, 1976). The findings of the aforementioned studies support the exploration of children's perception of tobacco use with Grade 4 students.

The strength of the Natapoff (1978, 1989), Palmer & Lewis (1976) and Short (1991) investigations of growth and development of children and their perceptions of health and healthy behaviors are the researchers use of the interviews. Interviews are suitable for children as they

allow for freedom of expression, decrease the risk for interviewer misinterpretation of concrete data (written or observed) and enhance the credibility of the research studies. The major limitations associated with interviews as a data collection method are they are time consuming, prevent respondent anonymity, and are subject to interviewer bias.

Summary

The weakness of this body of literature is the absence of current studies that examine the growth and development of children. The research consistently supports the believe that children in Grade 4 have the ability to internalize information about health, interpret it and make lifestyle choices based on their perception of what is acceptable and what will keep them healthy. Communication of information promoting the continuation of healthy lifestyle choices is more effective than attempts to induce smokers to make the healthy lifestyle choice to quit smoking. The exploration of Grade 4 students' perceptions of tobacco use is appropriate as school based primary prevention programs related to tobacco use generally begin at Grade 4 and children and secondly, students in this age group have the ability to conceptualize, interpret information and express their thoughts in past, present and future tenses. Grade 4 students are generally at the end of the concrete operations stage and are moving toward the formal operations.

Children's Perceptions of Health Related Topics

Ten research studies pertaining to children's interpretations of sensory input and the meanings children place on health related topics were identified (Davis & Jones, 1996; Harvey et al., 1998; Ireland, 1997; McCarthy, Cool, & Hanraham, 1998; Polivka, Lovell, & Smith, 1998; Short, 1991; Turner, Zimvrakaki, & Athanasiou, 1997; Watt & Sheiham, 1997; Wood, 1983; Woodgate & Kristjanson, 1996). The studies explored children's perceptions of health risk

(Davis & Jones, 1996); inequality (Short, 1991); neighbourhood safety (Polivka et al., 1998); asthma (Ireland, 1997); food and its relationship to healthy lifestyle choices (Turnner et al., 1997; Watt & Sheiman, 1997); and pain (McCarthy et al., 1998; Woodgate & Kristjanson, 1996). Harvey et al. (1998) and Henke (1995) are the only two studies of the nine that explored the children's perceptions of smoking.

Four of the studies exploring children's perceptions of health related topics utilized qualitative research designs (Ireland, 1997; McCarthy et al., 1998; Watt & Sheiham, 1997; Woodgate & Kristjanson, 1996). Both McCarthy et al. and Woodgate and Kristjanson investigated children's perceptions of pain. These studies revealed the young children experience many different types of pain during their hospitalizations. Older children tend to discriminate severity of pain, while younger children describe acute pain as "my hurts" (Woodgate & Krsitjanson). Woodgate and Kristjanson brought to light that children have definite ideas about how pain should be treated. The awareness of children's perceptions of pain can assist health care providers in meeting a child's need more effectively.

Turner's et al. (1997) exploration of adolescent perceptions of fat consumption found that 10 and 11 year olds were able to describe the relationship between fat and health, but had limited understanding of the use of fat in the body. Watt and Sheiman (1997) data indicated that the perceived social acceptability of certain foods differed between adults and young people. The meaning young people apply to the consumption of fat influences their behaviors related to the ingestion of fats. The findings from the research conducted by Turner et al., and Watt and Sheiman reinforce the need for increased knowledge of children's perceptions in the promotion of effective health promotion interventions.

Ireland's (1997) study exploring children's perceptions of asthma lays the groundwork for effective management by children of their chronic condition. The study found that the child's perception of the possibility to attain control was a potent determinant in his/her behavior selection of a management strategy. Knowledge of a child's perceptions is consistently identified throughout the literature, as an essential element in the promotion of healthy lifestyle choices.

Two of the nine studies investigated children's perceptions of smoking (Harvey et al., 1998) and abilities to recognize cigarette advertisements (Henke, 1995). Both studies established that children believe smoking is "bad for you". Harvey et al. found participants believed smoking was harmful to your health, but if the respondent was a smoker, the participant was more likely to believe people had to smoke for years before it would affect his/her health. Many of the smokers believe smoking helps them relax, stay slim, and that it was "cool."

As previously stated, the use of interviews are suitable for children and allow for freedom of expression which decreases the risk for interviewer misinterpretation of information and provides richer data. It provides the researchers with an increased understanding of the process children use in interpreting information and developing the meaning children place on their pain experiences as described in the studies by McCarthy et al. (1998) and Woodgate and Kristjanson (1996). It is this meaning which guides and forms individual response to pain. The major limitations associated with interview as a data collection method are it is time consuming, prevents respondent anonymity, and that interviews are subjected to the risk of researcher bias. Use of multi-method triangulation data collection reduces the limitations pertaining to singular methods of qualitative data collection (McCarthy et al, 1998; Woodgate & Kristjanson, 1997).

The use of questionnaires to survey large numbers of research participants (Davis & Jones, 1996; Harvey et al., 1998; Turner et al., 1997; and Wood, 1983) results in cost and time efficiency, increased respondent anonymity, reduction in interviewer bias and increased generalizabilitiy of research results. The major limitation of questionnaires is the absence of the researchers' understanding of the process children employ in gaining an understanding and interpretation of causality of illness (Wood, 1983), of the relationship between fat consumption (Turner et al, 1997), or smoking behaviors (Harvey et al., 1998) and one's heath status.

Summary

The research articles consistently recognized the need to be aware of children's perceptions and their ability to accept sensory input, analysis it, interpret the information, and place meaning on the information to create an response to the information. Multiple studies identified children's abilities to internalize information and make healthy lifestyle choices begins at age 9 or 10 years. They also revealed children often began experimenting with the use of tobacco prior entering into Grade 4 (Brown et al, 1986; Difranza et al., 1987; Jason et al., 1991; Ganley et al., 1998; Harvey et al., 1998;Health Canada, 1996; McGuire, 1981). Studies reveal that insight into children's perceptions is central to the success of primary prevention initiatives (Davis & Jones, 1996; McGuire, 1981; Pridmore & Lansdown, 1997).

The review of the literature discovered that experimentation with tobacco products begins prior to Grade 4 (Ganley et al., 199; Harvey et al., 1998). Secondly, the limited number of qualitative research studies pertaining to school-aged children's perceptions of tobacco use exemplifies the need to continue with the investigation of Grade 4 students' perceptions of tobacco use. Finally, primary prevention initiatives such as The Lungs Are For Life School

Based Primary Prevention program are generally introduced in Grade 4. Thus, it would be appropriate to explore the perceptions of children in Grade 4 prior to the introduction to the smoking prevention programs.

Summary of the Chapter

By utilizing the theory of symbolic interactionism as an organizing framework for the literature review, it is clear that effective school based primary prevention interventions are dependent on knowledge of children's perceptions related to the topic area. The meaning a student attaches to tobacco use is influenced greatly by previous experience, gender, exposure to tobacco use, social interactions with family members and peers, and exposure to mass media campaigns. The individual's ability to accept information, organize and interpret it, make a judgement about the meaning of the information, and finally responds to or takes action related the encounter is shaped by a student's level of growth and development. Perceptual development is a dynamic interactive process that results in lifestyle choices and individual actions. The researcher's and teacher's perceptions of the students' learning needs may differ greatly from what students perceive as their learning needs. Effective school based primary prevention interventions are based on knowledge of students learning needs. The program must be developmentally appropriate, focus on the here and now experience, and be based on accurate and relevant information.

Despite the available research related to the multiple factors that influence perceptual development and lifestyle behaviors of children, a void still exists. Researchers have made a leap from knowledge factors that influence student's perception to lifestyle behaviors children display. There is limited research related to students' perceptions of health related topics and

more specifically the perceptions of Grade 4 students' perceptions of tobacco use prior to the initiation of school based primary prevention programs about smoking.

Research conducted in the areas of gender differences related to children's perceptions, effective primary prevention interventions, and the impact of a student's social environment on his/her perception has been predominately quantitative in design. The use of quantitative research methods do not allow the researcher to gain an in-depth understanding of the meaning of children's perceptions, how they are created, or how children act upon their perceptions. Additionally, measures of reliability and validity often were not reported and few of the studies identified the study's conceptual framework. The qualitative methods utilized in the exploration of children's perceptions of health related topics provided increased understanding of how children develop their perceptions, organize and interpret information, provide meaning to the experience, and respond to the information or encounter. However, there are no qualitative research studies exploring Grade 4 students' perceptions of tobacco use.

Students' perceptions of tobacco use must be identified in order to provide them with the necessary information and social interactions to support effective school based primary prevention programs. Children's perceptions must be identified to ensure they are taught developmentally appropriate risk reduction and health promotive behaviors. Personal lifestyle choices are not simply a matter of informed choice, but attention must be given to the complex processes of societal influences, cultural variations, and group specific attitudes.

This study is a pivotal step in terms of exploring Grade 4 students' perceptions of tobacco use. There is an increased incidence of tobacco use among the youth in Manitoba. Seventy-four percent of all females and 65% of all males who are regular smokers became regular smokers

between the age of 12 to 15 years (Harvey et al., 1998). This study is unique in that it will explore the perceptions of students between the age of 8 and 10 years rather than focussing on the perceptions of teachers or parents.

Chapter Three

Research Design

The research design is the blueprint or plan for gaining answers to research questions. It includes plans for sample selection, data collection and analysis and ethical consideration (Burns & Grove, 1993). The research question posed in this study is descriptive in nature. Burns and Grove describe this type of question as factor searching. It describes or characterizes a phenomenon. Thus, a qualitative descriptive/exploratory design was selected as the methodological design for this study (LoBiondo-Wood & Haber, 1998; Polit & Hungler, 1995). The intent of the study was to explore and describe Grade 4 students' perceptions of tobacco use. The goal of qualitative methodology is to promote an understanding of the topic or phenomenon that forms the basis of the research question and is indicated when little is known about the topic being studied. A qualitative approach embodies a holistic belief that reality is based upon the perceptions of an individual within his/her environment (Burns & Grove). The qualitative descriptive/exploratory design is most appropriate for this study as documentation related to the topic is virtually non-existent and its purpose is to gain insight into children's perceptions, rather than to statistically analyze the significance of their perceptions.

Sample

Sampling involves the selection of a group of people who are representative of the population being studied (Burns & Grove, 1993) to increase the efficiency of the study. Purposive sampling is appropriate for the collection of data in qualitative studies that seek to describe the thoughts and lived experiences of a particular phenomenon, such as individual perceptions of tobacco use (LoBiondo-Wood & Haber, 1998). The researcher selected research

participants according to the needs of the study. The study was focused on the perceptions of Grade Four Students. Thus Grade Four students from two central Canadian elementary schools were included in the study as a result of their knowledge of a specific topic and the richness of the information they can provide to the study (Morse, 1991).

The population of interest was Grade Four students, the accessible sample included Grade 4 students in a city of central Canada. Grade 4 students were chosen as the appropriate age for the study related to cognitive development, the ability of the students at this age to internalize information and express their thoughts independently (Bibace & Walsh, 1981;Gardner, 1980; Malchiodi, 1998). The second reason for selecting Grade Four students, as the target population for this study is that school based primary prevention programs related to tobacco use in the specified city generally begins in Grade Four. Rather than being concerned about the representativeness of the sample, the focus was on the emergence of common themes and concepts from the data. Data saturation is the guiding principle of purposive non-probability sample selection (Polit & Hungler, 1995). The selection of participants continued until the point at which the researcher was gaining no new information from the informants.

The geographic area chosen for the study was in part due to accessibility for this investigator. By limiting the sample to Grade Four students to two schools within the same school division, the investigation was more feasible, and practical in terms of time, costs and personal energy for the investigator. Consideration of time requirements, energy, and practicality is critical when determining the sampling plan (Polit & Hungler, 1995). The schools volunteered to participate in the study but also met the sample criteria and provided a multicultural sample.

Morse (1991) states that in purposive sampling the researcher selects participants according to the needs of the study based on the information that the participant can provide to the study. Sampling must be both appropriate and adequate (Morse, 1991). Appropriateness refers to the degree to which the choice of participants and the method of selection "fit" the purpose of the study. The sample was chosen, as the focus of the study was to explore the perceptions of this population. The population of the city is multicultural in nature, thus the selection of participants and schools were chosen in order to attain a multicultural sample. Adequacy on the other hand refers to the sufficiency and quality of the data.

Sample Criteria

The participants of the study met the following inclusion criteria:

- able to speak English;
- willing to participate in the study;
- attending Grade Four in an urban elementary school;
- has normal cognitive development as determined by the child's teacher;
- no younger than 8 and no older than 10 years of age;
- parental/ guardian consent was received for the child to participate in the study.

The school(s) participating in the study will meet the following inclusion criteria:

- English speaking;
- permission to access Grade Four students to participate in the research study was granted by the school division's Ethics Committee
- permission to access Grade Four students to participate in the study was granted by the principal, and or vice principal and the teacher of the specified Grade Four students
- permission to have a letter of invitation/explanation of the study to the parents/legal guardians of these students was distributed by the participating schools.

Once ethical approval had been received from the Education/Nursing Research Ethics Board (ENREB), University of Manitoba, access to Grade 4 students of the selected schools was sought from the Ethical Review Committee of the School Division (Appendix A). The researcher sought permission from the principal and the teacher to contact the parents/legal guardians of Grade Four students from the respective schools (Appendix B). Letters of explanation inviting the participation of Grade Four students to participate in the study were distributed to the parent/legal guardian of Grade Four students (Appendix C). Parents/legal guardians of the students from the schools that volunteered to participate in the study and who met the inclusion criteria were requested to sign a letter of consent allowing their child to participate in the study (Appendix D). Once permission was attained from the principal, the researcher sought parental/legal guardian consent for Grade Four students to participate in the study. Each child was requested to draw a picture of what s/he thought of when s/he heard the term tobacco use.

After completing the drawing each child was requested to describe his/her drawing to the researcher during a face to face interview which lasted between 7 to 21 minutes.

The letter of invitation stated that the researcher was a Graduate student from the University of Manitoba Nursing Faculty. A description of the research study, stating that ethical approval for the study was received from the school division, the principal of the school and ENREB. A letter requesting permission to have their child participate in the study was also included. The letter also provided assurance of confidentiality and voluntary participation. Participatants in the study could be withdrawn at any point during the study. The investigator's name and telephone number were stated in the letter. Thus, if individuals providing permission for students to participate in the study had any questions concerning the study, they could contact the researcher at their convenience. Finally, the letter of invitation identified the amount of time required to have a Grade Four student draw his/her perceptions of tobacco use and to complete the individual interviews in which the participant's verbal description of the meaning of his/her drawing would be audiotape recorded (Appendix C).

Description of the Sample

Table 1 provides a summary of the number of letters that were distributed to the potential participants, the number participants available and willing to participate, and finally the number of participants who actually participated. Originally, only one school was going to be used to gather data, however there was only one Caucasian student who participated. Thus, a second school was approached to participate in the study. The utilization of two different sites resulted in increased representation from the various population groups of the central Canadian city, and the potential for variation in participant responses. In qualitative descriptive/exploratory studies,

variation in responses produces a broader look at the scope and patterns of the phenomenon under question (Polit & Hungler, 1997).

Table 1: Summary of Selection of Participants

Site	Number of potential participants	Number of available and willing to participate	Number who actually participated
# 1	20	13	13
# 2	10	7	4

The demographic profile of the participants of the study is provided in Table 2. The teacher of each site provided the researcher with the ethnicity of each child from the specific site in which the study was conducted.

Table 2: Demographic Profile of Participants (n=17)

Characteristics	Site 1	Site 2	N
Age			
9 years	12	4	16
10 years	1	0	1
Gender			
Male	6	2	8
Female	7	2	9
Ethnicity			
Aboriginal	7	0	7
Caucasian	1	3	4
East Indian	1	0	1
Metis	2	1	3
Vietnamese	2	0	2

Data Collection

Qualitative research studies with school-aged children as primary informants pose many challenges to the researcher. The risk of overrepresenting or underrepresenting elements of the population in the sample is reduced with the inclusion of incongruent evidence (drawings that differ greatly from the other drawings) (Polit & Hungler, 1997). The intent of this study is not to imply "cause and effect" but rather to explore the perceptions of tobacco use as perceived by Grade Four students. The researcher planned to collect data prior to the initiation of any primary prevention programs related to tobacco in the Grade Four classroom. There was difficulty in attaining this objective as the school division limits research during September and December of the school year. Thus the collection of data was postponed until after January. The health education related to tobacco use was conducted during the month of October. The researcher along with the teacher coordinated the times in which the data collection would occur. Thus, the health education related to tobacco use may have influenced the perceptions of children participating in the study.

The research project was explained to each child in terms they would be able to understand prior to asking the child to draw a picture of what they thought of when the researcher says "tobacco use" (Appendix E). Upon the request of the Grade Four teacher, an explanation of the study was provided to the class prior to the initiation of data collection. The teacher requested the explanation of the process be provided to alleviate stranger anxiety, and to assure the students that permission for them to participate in the study was given by their parents and their principal. The researcher described the purpose of the study, explained that she had spoken to the principal, a letter of consent was sent to each of their parents, and both the principal and their parents had given me permission to have their child draw a picture and

describe his/her picture. The student also was informed that the interview would be tape-recorded. Respect for voluntary participation was evident in the situation in which the researcher asked for a specific student to accompany her to the interview room and the teacher sent the incorrect student with a similar name. The student informed the researcher that he did not bring in the consent form and thus he was taken back to the classroom, and the error was rectified.

The space that was provided to conduct the interview and in which to have the students complete their drawings was based on availability and adequacy of the space to maintain a personal space of two feet. Respect for personal space promotes feelings of safety and trustworthiness of the participants involved in the study (Gallagher & Reid, 1981, Malchiodi, 1998). These strategies promoted student willingness to participate fully and honestly in the study. The student accompanied the researcher to the specified interview room within their school. Familiarity with one's environment is essential and promotes increased comfort in the participants and their use of creativity (Faux, Walsh & Deatrick, 1988; Hendricks, 1988; Malchiodi, 1998). Space is undoubtedly a factor that influences a child's creativity (Malchiodi, 1998). The research was conducted in three different rooms at Site 1. One of the rooms was the resource room, the second room was the French teacher's office, and the third room was the health office. All three rooms had a table for the children on which to draw, and comfortable chairs on which the researcher and the participant could sit. The researcher made a decision to have the children sit on the teacher's chair in the teacher's office. This strategy was used to promote empowerment and comfort of the child. The facial expressions/smiles of the participants identified that they felt comfortable and found sitting in the teacher's chair rather humorous. There was a consistency of at least a two-foot distance between the participant and the researcher in all four areas used for data collection. The tables were free of clutter and objects that could be

distracting to the student. The environment in which the participants drew their perceptions of tobacco use must be considered safe. The participant must feel free to draw images they may not want others to see (Gardner, 1980; Malchiodi, 1998; Olson, 1992). The influence of the environment became evident to the researcher when one of the participants asked whether the drawings would be shared with the participant's classmates. The participant had hesitated with his drawing, and when reassured that the drawing would only be shared with the researcher's professors, that the name of the child would not be included with the drawing and that no one would know who drew each picture the child continued to draw his/her picture and include a marijuana "joint" in the picture as described by the student. Since the nature of research is confidential, the space used for conducting the research was private and no identifiable information can be linked to the drawings. All four of the areas used for data collection were private in that the door to the room was closed during the interview process, and the drawings were coded with no identifiable information related to the artists.

Providing good quality materials with which to draw affects the richness, quantity and variety of constructs within the drawing. The size and colour of the drawing paper is an important factor in how and what the child may draw. Standard white 8 ½ inch x 11 inch paper was used in the study as it is often less threatening or overwhelming to children (Malchiodi, 1998). Each child was provided with a new package of 24 sharpened pencil crayons, 12 medium sized markers and a standard white 8 ½ inch x 11 inch piece of paper. The use of new materials ensured that all participants had the same equipment to complete their drawings. This promoted consistency among the participants. The researcher was made aware that resources were limited and that some of the children did not previously have pencil crayons or markers of their own. The participants were encouraged to use any or all of the drawing equipment they had in front of

them, including the felt markers, pencil crayons, and paper provided by the researcher. Supplemental pieces of paper were provided upon request of the student. Each participant was allowed to keep the pencil crayons and markers when s/he returned to his/her classroom. This promoted positive rapport between the student and the researcher, and was seen as a benefit for participating in the study.

Prior to requesting the participant to draw a picture of what s/he thought of when s/he heard the term tobacco use, the researcher introduced herself to the participant and provided an explanation of the study. The researcher reinforced the importance of hearing what each participant thought of when s/he heard the term tobacco use. The student was reminded that permission for him or her to participate in the study was given by the principal and his/her parents. Participation in the study was completely voluntary. Thus each student was informed that if at any time s/he did not want to answer a question s/he did not have to answer the question; s/he just had to inform the interviewer or pause and the interviewer would continue on with the next question. The student also was informed that if at any time s/he wanted to stop the interview, s/he just had to inform the interviewer and the interview would be stopped. The researcher looked for agreement from the participant with a nod or verbal confirmation that the information was understood. Providing the student with the opportunity to remove him/herself form the study reinforces the respect of participant's self-determination related to participation in the study (Polit & Hungler, 1997). No such request to remove him/herself from the study was made by any of the participants.

It is important to acknowledge that many children draw from memory of what they have previously seen, and some children require little stimulation to use their artistic abilities and creativity (Malchiodi, 1998). Thus, after the explanation of the study, each participant was asked

to draw a picture of whatever s/he thought of when s/he heard the term tobacco use. This direction provided the participants with direction as to what they could draw. The general direction on occasion resulted in some uncertainty of what they should draw. On three occasions participants asked if s/he could draw a specific object in her/his picture. The researcher responded with the answer that s/he could draw whatever s/he thought of when s/he heard the term tobacco use. The participant was informed that there were no right or wrong answers. Participants aged 8-10 years are consistently focused on the right answer and the rules related to their participation in any activity (Gardner, 1982, Gallagher & Reid, 1981).

The researcher avoided asking questions while the child was drawing. The asking of questions could be disruptive and annoying to the student (Malchiodi, 1998). Three participants asked if s/he could draw a specific object or action in the diagram. At those times the researcher used the answer that s/he could draw whatever s/he thought of when s/he heard the term tobacco use. The participant was provided with as much time as was required for him/her to complete his/her drawing. The participant either identified when s/he was finished verbally or by putting away his/her drawing equipment. The researcher confirmed that the participant was finished, by asking if s/he was done. The participants required between 3 to 12 minutes with an additional minute or two to add to the drawing during the interview. The participants took an average of 7 to 8 minutes to complete their drawings.

As described by Patton (1990) "the purpose of interviewing is to allow us to enter the other person's perspective" (p. 109). This type of interview is a guided conversation. Its goal is to elicit rich, detailed materials that can be used to gain insight into the perceptions of children (Morse, 1991). The semi-structured interviews involved the exploration of the meanings the participants gave to their drawings with the goal of gaining in-depth understanding of Grade 4

students' perceptions of tobacco use (Appendix H). Grand tour questions were used as an ice-breaking technique in order to relax the participants (Patton, 1990). The researcher complimented the student on his/her drawing as a method of encouraging the student to begin describing the meaning of the drawing. When the drawing was accepted, honored and validated by the researcher, the student was (through identification with his/her drawing) equally accepted, honored and validated (Malchiodi, 1998). Children can better understand through these actions, rather than through words, that s/he has been valued. These actions also promote the child's willingness to share his/her verbal description of his/her product. The use of probes, paraphrasing students' ideas, and rewording questions was used to elicit communication with the participants, verbalization of perceptions and meanings from the students, verification of student perceptions of tobacco use and misinterpretation of data. The questions used in the interview progressed from the semi-structured interview guide (Appendix F) and developed through the interaction with the study participants. The initial grand tour question, "Can you tell me about your drawing", required the participant to be reflective of his/her individual drawing. It allowed the student to direct the interview. In situations where the participant required more directive questions, the questions moved to more concrete questions such as who is in the picture? How old is the person? These questions required concrete thinking. The interview then progressed to questions that required complex prospective thinking such as, "how do you think the person in the picture feels?" or "What do you think the person is thinking?"

Many researchers have identified factors that must be considered when selecting and administering a semi-structured interview to children (Faux et al., 1988; Hendricks, 1988; Short, 1995). The first factor is that it must be developmentally appropriate. The second factor is that young children have a brief attention span. Therefore, the instrument must elicit information

reliably and quickly. Finally, individual interviewing procedures are most suitable for young children. The interviews provided an opportunity to clarify the information in the children's descriptions of their drawings and perceptions of tobacco use.

Seventeen interviews were conducted with seventeen different Grade 4 students. The length of the interview varied as directed by the participant. The shortest interview lasted 5 minutes, whereas the longest interviewed lasted a total of 21 minutes. The average length of the interview was 10 minutes. Each interview began with relaxed social interaction related to what they had done in school just prior to coming to the interview, and included conversation as directed by the student. The audiotape recording was prepared and an explanation of why the audiotape was being used was completed. The introduction to the study was restated, along with the participant's ability to choose whether or not to answer any of the questions and to voluntarily withdraw from the study. The focus of the interview then progressed with the participant's description of his/her drawing of what s/he had perceived when s/he heard the term tobacco use.

During the collection of data in the interview with Participant 4, it became apparent that the participants needed to be assured that the information was confidential, and that the information provided from the interview and their drawings would not be shared with classmates or teachers. The second change that became apparent was the need to have a closing question to ensure that the participant did not have any further information that s/he wished to provide related to his/her perception of tobacco use.

All the interview sessions were relatively relaxed. However, each session became more relaxed as it proceeded and each subsequent interview was more comfortable for the researcher

with the exception of three interviews. These interviews included the participants verbalizing information related to marijuana use and the thoughts that individuals using tobacco use could be using it to kill themselves. These situations will be discussed in more detail in relation to the experience of the researcher. All interviews were uninterrupted with the exception of one interview at Site 1 when the lead of the pencil broke and had to be resharpened, and one interview at Site 2, when additional consent forms were brought to the interview room. The interruptions were minor and did not affect the flow of the interview.

During the interview the investigator observed for actions of the participant that indicated his/her disinterest in continuing in the interview process or a wish to conclude the interview. The observations that indicated that the participant wished to conclude the interview, included frequent movement within his/her chair, muscle tension, looking at the door, and decreased volume in his/her voice. On two occasions the recess bell rang and the interview was concluded as the participants' behaviors indicated that on both occasions they wanted to go out for recess.

Prior to returning to the classroom each of the participants was asked not to discuss his/her drawing, what s/he had said about their drawings, or any of the questions that s/he was asked during the interview, as it could influence what his/her classmates drew when they participated in the study and they might copy what s/he had drawn. All the children agreed not to discuss what s/he had done and agreed that it was "like copying." Perception is individual, thus "copying" would threaten the credibility of the data. Children older than 8 years and younger than 10 years are in the period of concrete operations, but continue to shift away from egocentric thinking. They are increasingly aware of the world around them and the ability to depict what they perceive to be realistic elements in their drawings (Malchiodi, 1998).

At the end of the interview each participant was thanked for his/her participation and informed that s/he could keep the pencil crayons and markers if s/he so wished. The interview concluded with a reminder for participants not to discuss his/her drawing or what s/he said about his/her drawing during the interview. The participant was accompanied back to his/her classroom and once again thanked for his/her participation.

Grade Four students were the primary source of data, and the researcher was the primary instrument. In exploring children's perceptions of tobacco use, each student's description of his/her drawing was analyzed within the framework of symbolic interactionism. The investigator listened actively to each participant's verbal description of his/her drawing of tobacco use. The use of the drawings and semi-structured interviews allowed for in-depth exploration of each participant's perception of tobacco use, as s/he perceived it. The use of a combination of data collection strategies promoted a richer understanding of the phenomenon from each child's perspective, as well as, the identification of common perceptions/themes as seen through the eyes of Grade 4 students (Gabarino & Stott, 1990; Kotzer, 1990; Pridmore & Lansdown, 1997). The description of the drawing assumed that in some respect the phenomenon is unintelligible to the researcher without the explanation of the drawing by the participant who drew it. The explanation transforms it to a reality experienced by the participant (Brenner, Brown & Canter, 1985; Malchiodi, 1998; Sless, 1981). As described by Olson (1992) the use of a drawing "provides a springboard for an original story…the weaving of pictures and words together create a rich tapestry of meaning" (p 72-73). Visual thinking and the use of drawings are based on the perception of reality as seen by the artists (Olson, 1992, Malchiodi). Drawings have the ability to reflect the unique perceptions and experiences of children (Malchiodi). The participants are viewed as the expert.

The use of drawing, and students' descriptions and explanation of their drawing provided the researcher with one way of increasing understanding of the meaning of the children's drawings. Simply asking the participants questions about their drawings encouraged them to share their perceptions and enhanced the researcher's understanding of the meaning of the drawing. Seeking the explanation of the drawing from each participant decreased the researcher's bias and preconceived meanings related to tobacco use (Malchiodi, 1998). This was exemplified in the interview with one of the participants where the participant identified the smoker as being happy and the nonsmoker as being unhappy. The participant further explained that the smoker was happy because he enjoyed smoking, whereas the nonsmoker was unhappy as he was concerned that his friend, who was smoking, was going to become ill and possibly die. The researcher thought that the nonsmoker, rather than the smoker would be happy because he was not using tobacco. Thus the participant's free description of her drawing eliminated the researcher's misinterpretation of data.

In addition to the semi-structured interview, memoing, and the use of a field log were employed as additional sources of data. Field notes were taken during and directly following the interviews. Memoing of the researcher's immediate thoughts and observations of the student's nonverbal communication that occurred during each interview provided insight into the texture of the interview process. The field log provided insight into the interview length, summary of the researcher's impression of the process, and questions that were answered by listening to the audiotape recorded interviews or by member checking during the interview process. The memoing and field log provided the researcher with the opportunity to use reflexive jotting and to use herself as an instrument to enhance data collection and assist in data analysis (LoBiondo-Wood & Haber, 1998; Guba & Lincoln, 1989).

The research question lends itself to an "emic" perspective. The researcher listened actively to Grade 4 students' verbal descriptions of their drawings, rather than attempting to interpret their drawings independently. Having the participant describe the meaning of his/her own drawing reduced the risk of introducing researcher bias and possible misinterpretation of the perception of the participant. Recognition of the beliefs and assumptions the researcher brought to the study was crucial. Recognition of the researcher's assumptions challenged the researcher to ensure that the assumptions did not influence the analysis of the data (Polit & Hungler, 1997). Thoughts, feelings, and impressions were recorded and organized. Journal entries were used to record personal reflections, hunches, and beliefs concerning the process of the research study. To enhance the reflexivity, the researcher discussed progress of the study, interpretation of fieldnotes, hunches, and log material with a member of the researcher's thesis committee. Throughout the researcher's nursing career she has developed an extensive ability to communicate effectively in a non-threatening manner with both children of various age groups and their families. The researcher drew on these abilities to enhance the recruitment of participants and collection of data.

Data Analysis

Data analysis and data collection often occur simultaneously (Morse, 1991). The process of reflecting, with the use of memos and field notes, facilitated the ongoing simultaneous interpretation of findings. The researcher sought clarification of what the participant meant when describing his/her drawing. Clarification was sought at this time in order to decrease the influence of time and discussion with peers on the participant's perception of tobacco use. The data analysis was focussed on gaining insight into Grade 4 students' perceptions of tobacco use rather than on the researcher's interpretation of the students' drawings. Verification of

researcher interpretation of participant description of tobacco use was completed throughout and during the summary of each interview. Member checking guarded against misinterpretation of data and researcher bias (Burnard, 1991; Guba & Lincoln, 1989; Libiondo-Wood & Haber, 1998; Polit & Hungler, 1997).

Interviews were audiotape recorded and transcribed verbatim. Listening to the audiotape recordings provided the researcher with the nuances of the participants' voice and enhanced the richness of the written word. The audiotape recordings were transcribed by the researcher as a method of immersing the researcher in the data. The transcriptions were double-spaced, and sounds and identifiable nuances were included as much as possible. Each line of the transcription was numbered to allow for accurate content analysis. Data from these transcriptions were then extracted, coded, and analyzed. Themes gradually emerged from the data.

Thematic content analysis constituted the main analysis effort, which is a fundamental method used in qualitative research studies. It involved moving back and forth between data sets to discover patterns, to determine the absence, variation, or presence of patterns (Brenner, Brown & Canter, 1985; Polit & Hungler, 1997; Hutchinson, 1996). Immersion in the data was attained by the research reviewing the audiotape recordings of interviews that were completed on the day of the interview. This allowed for reinforcement of themes and thoughts related to the interview process. It also allowed for confirmation or negation of remembered voice tones, or other identifiable nuances. After all the interviews were conducted, all the tapes were sequentially listened to a second and third time. The interviews were transcribed by the researcher as a method of immersing the researcher in the data collected during the interviews. Re-reading the transcripts while listening to the audiotape-recorded interviews allowed the researcher to correct any errors in the transcription, and to further immerse herself in the data. Burns and Grove

(1993) describe the process of thematic content analysis as the progression from broad descriptive categories that eventually became more organized into interpretive, and finally, explanatory ideas of the research topic. Triangulation of data was ongoing through the use of audiotape recorded interviews, interview transcripts, memoing, and field notes. The use of data triangulation enhanced the validity/trustworthiness of the data and guarded against researcher bias (Burnard, 1991).

Open coding of data was used. The use of this type of coding is based on the assumption that common themes will be evident within students' perceptions of tobacco use. Following the coding and development of categories as part of the interview transcripts, the investigator discussed the categories with her thesis Chair. The analysis of the data occurred within the conceptual framework of symbolic interactionism. The Chair of the thesis committee completed an independent coding of one of the initial transcripts and provided verification of interpretation of data. Validation of interpretation enhanced the trustworthiness of the analysis of the data and assisted in reducing the risk of researcher bias (Burnard, 1991; LoBindo-Wood & Haber, 1998; Polit & Hungler, 1997).

The thematic content analysis is the most appropriate method of analysis when the focus of the study is exploratory and descriptive in nature. Various strategies were used to accuracy and trustworthiness of the analysis of the data. Discussion of the measures used to enhance rigor of the study is to follow.

Measures to Enhance Rigor

Guba and Lincoln (1989) identify trustworthiness and authenticity as the main criteria of evaluating the rigor of a qualitative research study. Trustworthiness criteria consider the unique

contribution of goodness of fit, while authenticity criteria are embedded in the basic belief of constructivism itself. Credibility, transferability, dependability and confirmability are the four criteria commonly used to evaluate the trustworthiness and authenticity of qualitative studies.

Credibility

The focus of the credibility criterion moves from an objective reality to establishing a match between the constructed realities of research participants and those realities presented in research findings (Guba & Lincoln, 1989). Sandelowski (1986) suggests that a study is credible when "it presents such faithful interpretation of human experience that the people having the experience would immediately recognize those descriptions or interpretations of the experience as their own" (p. 30). The truth or credibility of this study was achieved through the discovery of Grade 4 students' perceptions of tobacco use, as they perceived the phenomenon, not as interpreted by the researcher. The participants' described their drawings and explained the meaning of the items included in the drawing. Drawings have the ability to reflect the unique perceptions and experiences of children (Malchiodi, 1998). The participant is viewed as the expert.

The researcher attempted to gain insight into the Grade Four students' perceptions of tobacco use through the use of drawing and semi-structured interview. The use of drawings, student description, and explanation of his/her drawing provided the researcher with one way of increasing the understanding of the meaning of the children's drawings. Simply asking the participants questions about their drawings encouraged them to share their perceptions, and enhanced the researcher's understanding of the meaning of tobacco use to the participant.

Persistent observation, peer debriefing, inclusion of incongruent evidence, progressive subjectivity, member checks, and development of trust between the researcher and participants promoted the attainment of credibility of the study. The use of the familiar setting of the classroom, and the cooperation of the principal and the parents assisted in the development of trust. Additionally, student awareness that all the information s/he provided to the researcher was confidential greatly affected the ease and completeness of student responses (Faux et al., 1988). Students were also informed that the information provided during the interview, as well as their pictures, would not be shared with their classmates or teachers. The participants also were reassured that their drawing could not be directly linked to any identifiable participant information. No one other than the researcher would know the names of the participants and who was the owner of each drawing. These strategies promoted student willingness to participate and provide free descriptions of his/her perception of tobacco use.

Prolonged engagement is contraindicated in exploring school-aged children's perceptions (Hendricks, 1988). Thus, the length of the semi-structured interviews was limited to 20 minutes, and determined by the comfort level of the participant and the student's desire to carry on with the interaction. The researcher observed for nonverbal (eg., increased movement, looking away from the drawing and the researcher) and verbal changes (eg., decrease in discussion, request to not continue or to leave) that indicated the student's desire to no longer continue the interview.

The collection of adequate data provides the researcher with data that is richly textured and complete (Polit & Hungler, 1997). The quality of the data may be questioned if incongruent evidence is excluded from the data. Thus, the researcher included all the verbal descriptions that were provided by the participants whether or not the description was consistent with the descriptions provided by the other members of the sample. The inclusion of incongruent

evidence (drawings that differ greatly from the majority of the drawings) enhanced the adequacy of the data and credibility of the study.

Credibility of the study was enhanced through the use of member checks during the semi-structured interviews. Memoing of researcher's thoughts, feelings, and observations of nonverbal communication during the interview, use of the field log describing the interview length and researcher's impression of the interview, and transcription of the interview verbatim promoted the richness of the data collection. Audiotape recordings of the interviews, review of the audiotape recordings on the day of the interview, transcription of the audio tapes, field notes, memoing, member checks during the interviews, and consultation with the thesis committee were used to guard against researcher bias and the loss of the "whole" of the interview (Burnard, 1991; Guba & Lincoln, 1989). Progressive subjectivity of the data collection by actively listening to participants' free descriptions of their drawings challenged and made the researcher more aware of her assumptions and preconceived ideas related to tobacco use. It also challenged her to pay closer attention to the constructs/perceptions offered by the Grade Four students. Seeking an explanation of the drawing from each participant decreased the researcher's bias and possible misinterpretation of the data.

Transferability

The major technique for establishing transferability is through thick description. Transferability is "relative to the degree to which salient conditions overlap and match" between studies (Guba & Lincoln, 1989). The presentation of data must be complete enough to facilitate transferability judgements on the part of others who may wish to apply the research findings of the study. Thick description provides an account of the process of data collection (tools, time,

context) and analysis with examples of the original data that result in the emergence of themes. The semi-structured interview guide that focused on the drawings created by the study participants, and field notes describing the length and salient points of the interviews provided insight into the data collection process of this study. The use of the drawings and semi-structured interviews allowed for in-depth exploration of each participant's perception of tobacco use, as s/he perceived it. The use of a combination of data collection strategies promoted a richer understanding of the phenomenon from each child's perspective, as well as, the identification of common perceptions/themes as seen through the eyes of Grade 4 students (Gabarino & Stott, 1990; Kotzer, 1990; Pridmore & Lansdown, 1997).

Dependability

Dependability of data collection is concerned with the stability of data collection over time (Guba & Lincoln, 1989). The use of the previously described semi-structured interview guide (Appendix D) not only promoted efficiency in the collection of data, but also promoted the consistency of the interviews between participants, thus preventing instability of data collection. As described in the data collection section of this chapter, there were various strategies used to maintain the consistency of the interview rooms and materials (maintaining the distance between the researcher and the participant, the use of a table and chairs in the room, new pencil crayons, markers, and 8 x 11½ piece of white paper) used for data collection. These strategies were used as methods of enhancing the dependability. The logic of process decisions and field notes also were included as part of the dependability audit.

Confirmability

Confirmability, "is concerned with assuring that data, interpretations and outcomes of inquiries are rooted in contexts and persons apart from the investigator" (Guba & Lincoln, 1988, p. 243). The use of drawings created by the participant, and descriptions, and explanation of the drawings by the person who drew the picture decreased the risk of misinterpretation of data. Audiotape recording the interviews, review of the audiotape recording the day on which the interview was completed, transcription of the interviews by the researcher, use of memoing, field notes, member checks during the interviews and the sharing of data with the Thesis Chair during data collection and analysis guarded against researcher bias, verified the accuracy and consistency of the research process, and interpretation of findings.

Ethical Considerations

Ethical considerations must be observed during each step of the research process (Morse, 1991; Polit & Hungler, 1997). Gaining research knowledge is always secondary to the rights of the participants. Fundamental principles addressed in research include beneficence, respect for human dignity, and justice (Polit & Hungler). Beneficence includes the freedom from harm, exploitation, and a careful assessment of the risk-benefit ratio. As a vulnerable population special consideration must be given to the target population of children (Akers & Bell, 1994; Chambers, 1992; Lowes, 1996). The research study received ethical approval from the Education/Nursing Research Ethics Board (ENREB), University of Manitoba.

Principle of Respect for Human Dignity

The principle of respect for human dignity requires that consent be informed and voluntary (Morse, 1991). Access to the school division followed the attainment of ethical

approval from the ENREB. A sealed envelop with a letter of invitation/explanation of the study, with a consent form, and a return self addressed envelop was sent by the specified schools on behalf of the researcher, to the parent(s)/legal guardian(s) of Grade Four students from the classrooms and schools in which the principal, vice principal and the teacher agreed to participate in the study. Parental/legal guardian's consent allowed the child to participate in the study. Participation in the study was completely voluntary. The children could withdraw from the research study at any point during the study. Each interview began with the explanation of the purpose of the research study, the explanation of what was required of each participant, and reinforcement of the participant's ability to not answer any question s/he did not wish to answer and/or to stop or remove him/herself from the interview process at anytime during the interview.

Principle of Justice

In accordance with the principle of justice, the right to privacy was maintained by ensuring confidentiality. Participant confidentiality was maintained through the use of pseudonyms, and the coding of each transcript and drawing with a specific number. The researcher is the only person with access to the specific code of each transcript and drawing. Names that could identify the participants were kept on a master sheet of codes to be kept in a separate locked filling cabinet. Secondly, the researcher and thesis advisory committee were the only persons with access to the raw data. The importance of confidentiality was exemplified with one of the participants who questioned whether the drawings would be shared with the classmates. When the participant was informed the pictures would not be shared with the classmates, he continued to add a picture of marijuana to his drawing.

Principle of Beneficence

The principle of beneficence states that the intent is "above all to do no harm" (Polit & Hungler, 1997, p. 134). Estimation of the risk/benefit ratio to participants is considered. The invitation to participate included the amount of time required for each interview, the amount of time and effort required by Grade Four students participating in the study, and the right to withdraw from the study at any point during the study. Student benefit was based on the assumption that knowledge of student perception was essential to the development of effective primary prevention initiative, an assumption strongly supported in nursing and education literature (Clubb, 1991; Dalis, 1994; Dusenbury & Falco, 1995; Glynn, 1989; Haine, 1989; McGuire, 1981; Uphold & Graham, 1993). There was some concern by the novice researcher related a participant's comments related to her concern for her father and her father's girlfriend becoming ill as a result of their smoking. She really wanted to talk about her thoughts and feelings related to family members who were smoking. She also spoke of her belief that "some people smoke because they want to kill themselves." It was during this time that the researcher questioned if she had the right to encourage this participant to disclose these concerns. At the end of the interview, the researcher discussed her concern with the teacher and observed the participant's re-entry into the classroom atmosphere. The student did not demonstrate any difficulty and the teacher reassured the researcher that she would observe the participant's behavior for any signs of concern.

The Researcher's Experience

Through the course of data collection the researcher realized that, just as the participants were dealing or managing with a particular issues, so was the researcher. As a novice researcher, she was learning how to manage her role as a researcher. She was learning how to gain accurate descriptions of Grade Four students' perceptions of tobacco use while at the same time not leading the participant's response. The use of communication strategies such as reflection, and use of general leads promoted increased communication with the participants in this study. Self-talk was used consistently remind the researcher to stay focused and to use open-ended questions rather than directive questions that would answer the question for the participant. These strategies also promoted enhanced accuracy and credibility of the research data.

The second difficulty of the novice researcher was separating the role of nurse from the role of researcher. There was a conflict between my personal beliefs concerning the use of marijuana and the role of the researcher to maintain neutrality to encourage a rich unbiased description of his/her perception of tobacco use. Two of the students discussed the use of tobacco as being synonymous with the use of marijuana. The students' perceptions were that marijuana made you relaxed. They did not indicate that the use of the product could result in dangerous effects to the person using it. I maintained her neutrality, and did not provide any teaching about the use of marijuana and its damaging affects.

The researcher had to separate the roles of researcher and nurse. As a nurse her role included teaching, health promotion activities and correction of incorrect health information. In listening to one of the participants' description of tobacco use as a measure of killing oneself the researcher became concerned with the participants thoughts of suicide related to the use of

tobacco use. The innuendos related to suicide were of great concern to the researcher. I also questioned whether or not she should correct misconceptions of participants related to both tobacco use and the use of marijuana. It was decided that the researcher would not correct misconceptions at this time as the purpose of the study is to gain insight into Grade Four students' perceptions of tobacco use, rather than providing education related to tobacco use. A display of concern for the participant could be interpreted as not maintaining neutrality. However, it is the researcher's belief that a display of concern, along with listening attentively, cultivated a trusting relationship resulted in more insightful data and eased the emotional distress that could have been experienced by the any of the participants.

Limitations of the Study

The limitations of this study are associated with the limited experience of the researcher, sample selection, and time constraints. These three limitations specific to this study need to be addressed. The first limitation to this study is related to the researcher's limited experience in conducting a research study. All the interview sessions were relatively relaxed but, always began with a sense of uncertainty. It was during this time that the researcher would question if she was asking the right questions and whether the questions were leading the participant to answer in a certain manner. However, each session became more relaxed as it proceeded. Each subsequent interview became increasingly comfortable for the researcher. There were two exceptions to these feelings. The exceptions included a couple of interviews in which the participant verbalized information related to marijuana use and the thoughts that individuals using tobacco use could be using it to kill themselves. These situations were discussed in relation to the experience of the researcher. The inexperience of the researcher resulted in the researcher questioning her judgement in regards to how she handled these situations. The researcher's experience as a

pediatric nurse assisted in reducing researcher's discomfort associated with interviewing children. The researcher's inexperience with qualitative research and data analysis required consistent verification with the Thesis Chair to ensure the accuracy and consistency of the research process and study findings.

Due to the nature of the study's sample, findings of the study cannot be generalized to a larger population, which is sometimes considered to be a weakness of qualitative research studies. As previously discussed, the goal of this study was not to make generalizations, but rather to elicit insight into Grade Four students' perceptions of tobacco use. More important in qualitative research is arriving at an accurate description of a particular phenomenon. There was also a risk that the researcher could not fully understand the thoughts and the world of Grade Four students. However, strategies to increase the authenticity of understanding Grade Four students' perceptions of tobacco use and the trustworthiness of the study have been addressed by the researcher in the description of measures to enhance the rigor of the research study.

Another limitation to this study is the age of the sample and the subjective nature of perceptual development. The attention spans of the participants were short which resulted in the use of semi-structured interviews to ensure that the interview quickly elicited reliable information (Morse, 1991). Due to the differences in young children's cognitive, physical and linguistic developments, the researcher was unable to assume equal status with the participant. The researcher can never be a school-age child or be a complete participant (Deatrick & Faux, 1989, Fine & Sandstrom, 1988, Hatch, 1988).

The final limitation of the study is the change in the environments in which the interviews were conducted. There were three interview rooms used at Site 1 of the study. It was difficult to

assess whether or not the variation in the environment affected the interview process or the creation of the drawings of the participants' perceptions of tobacco use. There was some discomfort noted when the interview room was a teacher's office. However, when the participants were encouraged to sit on the teacher's chair and draw their perceptions of tobacco use there were a few smiles, as they appeared to find it somewhat humourous. The noise level outside of the health office was distracting but could not be controlled for. There was no evidence to support that the participants' perceptions or the interview process were altered. The participants who were interviewed in the teacher's office or the health office used between 3-12 minutes to draw their pictures and the duration of the interviews was between 8-14 minutes. There were various strategies to maintain some consistencies between all three, interview rooms at Site 1, as well as the interview room at Site 2. These strategies included the distance between the researcher and the participant, the placement of the audiotape recorder, the placement of pencil crayons, markers and paper for each participant.

Summary of Chapter

The exploratory/descriptive research design was the appropriate perspective to adopt considering the purpose of the research study was to answer the research question "What are Grade Four students' perceptions of tobacco use?" The conceptual framework of symbolic interactionism provided organizational structure to the collection and analysis of data, and categorization of themes that emerged from the data. Exploring the participants' verbalizations of the individual meaning of each of their drawings furthers understanding of Grade Four students' perceptions of tobacco use. The next two chapters will specifically describe and discuss the findings of this research study.

Chapter Four

Research Findings

The perceptions of tobacco use as seen through the thoughts of Grade 4 students in a central Canadian city were explored in this research study. The examination of children's drawings and their descriptions immediately following the creation of their drawings offered a snapshot of the children's perceptions that had not been previously examined. Five themes emerged from the analysis of data. The five themes were:

1. Activities associated with tobacco use
   - 1.1 Description of tobacco products
2. Causal Links between Smoking and Ill Effects of Tobacco Use
   - 2.1 Ill effects of nonsmokers
   - 2.2 Ill effects of smokers
3. Origin of Children's Perceptions of the Ill Effects of Smoking
4. Emotions associated with tobacco use
5. Valuing of smoking and smokers

Several sub-categories of perception emerged from the five themes. These themes were analyzed both separately and to some degree in relationship to each other. The narratives of the seventeen participants provided data that exemplified the themes that emerged in the analysis of the data. The similarities and differences of Grade Four students' perceptions of tobacco use will be discussed in this chapter. Wood (1988) questions how adults can determine whether or not instruction is sensitive to a child's zone of learning without having knowledge of the child's

perception. The themes that emerged from the data, describe Grade Four students perceptions of tobacco use. The interviews also uncovered factors that influenced the perceptions of the participants. These factors will also be discussed throughout this chapter.

The term "tobacco use" was used in the research question as a strategy to decrease the researcher's influence on the child's perception, thereby reducing researcher bias. Smoking was the main activity the children equated with the use of tobacco. However, two of the participants also identified the use of marijuana as being congruent with the meaning of the term tobacco use. Interestingly one of the participants drew a picture of someone drinking soup. Thus the use of the term "tobacco use," rather than smoking allowed for the disclosure of a greater variety of responses to the research question, "What do you think of when you hear the term tobacco use?" The use of a general rather than a term depicting a specific activity enhanced the dependability of the data collected in the study.

Each participant drew a picture and provided free descriptions of the meaning s/he gave to his/her picture. The combined methodology provided the researcher with insight into their various perceptions of tobacco use. Therefore, the use of the term tobacco use decreased the risk of the researcher influencing the participants' perceptions. Tobacco use could have different meanings to different children. The perceptions of the participants were influenced by a variety of factors within their social culture, as well as the cognitive development of the study participants. The data collected from the participants' drawings and semi-structured interviews illustrated the influence of education, media, personal experiences, peers, and family on the development of the students' perceptions of tobacco use.

Description of the Participants

The children who participated in the study came from two different schools within the same school division. The sample consisted of eight males and nine females. Sixteen of the seventeen students were nine years of age, and the remaining participant was ten years old. There were two students who did not understand the meaning of the term tobacco use and who were provided with a generic definition of tobacco. Both students were told that tobacco was a plant that could be grown, heated, or burnt. The student's wish to complete the requested task is congruent with the school-age child's intent to display proper behavior and know the exact rules that s/he needs to follow in completing the requested task (Gardner, 1980).

Children of this age group are progressing through Piaget's developmental stage of concrete operations. Students of the cognitive developmental stage of concrete operations are able to describe the final physical outcomes or ill effects associated with tobacco use but are unable to describe the physiological changes that would occur prior to the development of the ill effects of tobacco use (Thompson & Gustafson, 1999). The students' desire to have their drawings depict reality is congruent with Piaget's developmental stage of concrete operations. The students' desire to have their drawings depict perceptions that are realistic illustrated that students' are progressing through the development of concrete operations. This development was illustrated through the students' requests to add to their drawings as they felt they were unable to clearly describe the smoke or the placement of blue markers on the cigarette with the use of words.

> *kind of like smoke in the air ... can I draw something (she drew grey lines moving up the page to illustrate smoke going into the air) ... it is grey (Participant 7).*

Another student asked:

Can I add something to my drawing (Participant 15)?

When the student was unable to draw the cancer the use of the semi-structure interview allowed the researcher to discover a broader understanding of the children's perceptions.

The use of drawings in combination with semi-structured interviews enhanced the researchers' understanding of students' perceptions of tobacco use. The drawings were completed in quiet environments with the use of new pencil crayons, markers and an 8x11½ piece of white paper. The semi-structured interviews progressed in relationship to the individual drawings and the answers provided by the individual participants in the study. When students were unable to draw part of their perception the use of the semi-structured interview allowed the students to verbally expand on their free descriptions of their perceptions.

Researcher: *Is there anything else that you think of when you hear the phrase tobacco use?*

Student: *Well, I think of cancer but I don't know how to draw it (Participant 15)*

The combined methodology reduced the risk of misinterpretation of students' perceptions and allowed the participants to provide free descriptions of their perceptions of tobacco use. These free descriptions provided the researcher with a broader understanding of student perceptions.

Activities Associated with Tobacco Use

The main activity associated with tobacco use was smoking. Fifteen of the seventeen participants described people in their picture as smoking. Most commonly the individuals in the pictures were smoking cigarettes.

People who smoke wouldn't be healthy (Participant 5).

Well, it is a person smoking and inside her mouth her lungs are black (Participant 7).

Others described the influence of family on an individual's choice to start smoking.

Because he has tobacco, he picked it up from his parents...his parents are smoking. He saw his parents smoking and they thought it would be fun to let him smoke (Participant 8).

The use of the term tobacco use allowed for a wider variety of responses to the research question. On two occasions the participants included a description of people smoking marijuana. Interestingly, the students were able to describe the similarity between tobacco products and the effect of marijuana. The participants who discussed marijuana as a tobacco product came from different schools in the study. The first comment displayed the perception that there was a similarity between cigarettes and marijuana.

I think of marijuana but it is the same as cigarettes (Participant 4).

The second individual identified a perceived outcome related to the use of marijuana. The student's response displayed the student's movement from concrete to abstract thought.

Some people smoke marijuana. My dad never does but some people do. Some people smoke marijuana because they think it might make them feel better (Participant 16).

Description of tobacco products

The accuracy and detail in the students' perceptions of the tobacco products was promoted by the students' personal exposures to cigarettes within their environment. The students were able to describe the shape, colour, and the materials included in the product. The colour of the cigarette is described as white with a red or grey colour on the top of the cigarette.

...it is on fire. And then it, the smoke comes up because there is a fire. And the paper burns. The paper is white and the top of the cigarette is red in colour (Participant 14).

The student was asked to differentiate between the meanings of the different colours used in the illustrations.

> *That is the smoke (grey colour). It is lit up and that it has fire stuff on it (red colour at the top of the cigarette) (Participant 6).*
>
> *Like when it goes orange when they light the smoke, when it is outside. Well sometimes I see smokes on the ground and people step on it and it is the mouth part (an orange piece on the end) (Participant 1).*

The students were able to differentiate between the different shapes of the cigarette products. There were two different shapes included in the students drawing. The rectangle was white in colour whereas the square was brownish yellow.

> *The rectangle is a cigarette. The colour is white. The square is a cigarette butt, or something. The colour is brownish yellow (Participant 11).*

Student knowledge of the ingredients included in the manufacturing of cigarette products is exemplified in a student's identification of nicotine as being part of the cigarette. Her accuracy of the effects of nicotine displays increased realism in the child's perceptions of tobacco use.

> *It makes their teeth go yellow. Nicotine. Yeah nicotine here (pointing to the inside of her fingers) and nicotine in the person's lungs then they get black lungs (Participant 1).*

It was compelling to learn that one of the participants was even aware of the significance of the blue markers on a cigarette. His statement,

> *it is white and it has tobacco in it up until they had blue marks in there but I forgot to put them. He proceeded to put the blue marks slightly below the filter of the cigarette in his picture (Participant 15).*

Once again the accuracy of the student's perception of tobacco use and tobacco products was exemplified in the previous statement. This accuracy of the students' perception also was displayed in another participant's use of different colours in his drawing of a marijuana joint and a cigarette. The marijuana joint was a rolled product, whereas the cigarette appeared to be a commercial product. When asked what the drawing included the participant stated,

> *Cigarette, marijuana, and uh and that's where my grandpa smokes. In his chair...in my living room. That is where he holds it (orange piece on the cigarette)(Participant 4).*

When asked about the marijuana joint the student described the product as,

> *That is green ...it is all grey on top (Participant 4).*

Smoking continues to be the primary activity associated with tobacco use.

Other drawings depicted the activity of peer pressure and the sale of tobacco products. In the first situation Participant 8 described one of the boys in the drawing as trying to convince another boy to take the tobacco even though the second boy in the picture did not want to accept the tobacco.

> Participant: *This boy is trying to make this other boy to take some tobacco, but he says no thank you.*
>
> Researcher: *Okay, and can you tell me where you might think this could be. Where do you think this might be taking place?*
>
> Participant: *In the park.*
>
> Researcher: *...Are they friends?*
>
> Participant: *Nope.*
>
> Researcher: *Okay, why are they not friends?*
>
> Participant: *Because he then would not be trying to make him (the boy without the tobacco) take the tobacco.*
>
> Researcher: *Why do you think the one boy is trying to get or trying to ask the other boy if he wants to have some tobacco?*
>
> Participant: *(Pause) Because his other friends don't take tobacco so the other boy (pointing to the boy with tobacco in his hand) is trying to make him like him.*
>
> Researcher: *(Pause) And when he (pointing to the boy without the tobacco) is saying no thank you how do you think he is feeling?*
>
> Participant: *Nervous...I don't know, afraid.*

This free description illustrated the importance of the need to be liked and the influence of peer pressure activity in promoting the activity of tobacco use.

In the second situation the boy who is selling tobacco to others is described as "tricky." He is in the mall at midnight and is trying to sell tobacco to the grocery store.

He is selling it ...um to the grocery store (Participant 13).

Thus, the selling and sharing of tobacco was an activity that was perceived as common practice related to the activities associated with the use of tobacco products.

The final activity that emerged from the data was illustrated in a participant's free description of his drawing in which the person was using tobacco as a food group.

Um, it is a person drinking soup. It's a boy. In his house. It makes him feel warm...his mom made it (Participant 2).

A variety of activities were illustrated in the drawings and free descriptions of the participants. Smoking continues to be the main activity that children associated with tobacco use.

Causal Links between Smoking and Ill Effects of Tobacco Use

The students' perceived that smoking not only affects the person who was smoking, but also nonsmokers in a negative manner. They perceived a cause and effect relationship between smoking cigarettes, the use of marijuana, and the development of various ill effects by nonsmokers, as well as individuals who were smoking. The ill effects experienced by nonsmokers and smokers displayed both similarities and differences. The physiologic effect that was common to both the smoker and the nonsmoker was the cough. The cough was correlated with the allergic response, and the development of black lungs in nonsmokers and with the development of black lungs in individuals who smoked. The students' abilities to understand the effect of second hand smoke displayed their beginning abilities to think abstractly, especially in situations where the participants have not had any consistent personal exposure to second hand smoke.

Ill effects associated with tobacco use experienced by nonsmokers

Various students described their perceptions that second hand smoke is evident in the environments where people were smoking. The environment is described as being filled with smoke, grey, and in some instances an environment in which it was difficult to breath.

> *It looks like breaths but it is floating around... like breaths in the winter (Participant 16).*

An interesting discovery was the accuracy of the Grade Four students' perceptions of the ill effects associated with exposure to second hand smoke. Students' free descriptions disclosed that nonsmokers experienced dizziness, and coughing when exposed to second hand smoke.

> *There is bad air...smoke...black. The smoke is something that goes up into the air because you light the cigarette and it is on fire. An then it, the smoke comes up because there is fire. And there is something in there...that make it extra smoky, lit tobacco. And the paper burns too. It makes you dizzy, like a bit dizzy and my eyes watery (Participant 10).*

The data unearthed the children's ability to correlate nonsmokers' allergic responses to second hand smoke. The following descriptions illustrated the direct correlation between second hand smoke and allergic responses of individuals not using the tobacco products.

> *I would feel really bad because I might be coughing and I would try to get away. Well, my babysitter used to smoke...it made me sneeze a lot (Participant 15).*
>
> *The smell of smoke makes me cough cause I have an allergy...to tobacco (Participant 16)*

The students identify the allergic response to smoke as a factor that would deter people from smoking.

Coughing evolved as another adverse effect that nonsmokers experienced when they were exposed to second hand smoke.

> *...that is where my grandpa smokes...in his chair. It's in my living room. It is grey and all smoky and you can't breath, I sometimes start coughing...I just move to somewhere else in the house (Participant 4).*

The causal link between second hand smoke and the development of black lungs in nonsmokers was exemplified in the description of Participant 6.

> Participant: *At Herb's, a breakfast place that my dad takes me...the air is clean...I feel good because I don't have black lungs.*
>
> Researcher: *If you are in a room where there are people smoking do you think you will get black lungs?*
>
> Participant: *Yeah, because you breathe in the smoke too.*

In contrast, students described the air in smoke-free environments as being,

> *"clean, "it doesn't look blurry... it doesn't smell funny like smoke" (Participant 1).*
>
> *good air... clear... when he (her dad) is not smoking he breaths in clear air, that is why there is a little bit of pink in there (pointing to the black lung)(Participant 16).*

Students' perceived that smoking not only affects the person who was smoking but also nonsmokers in a negative manner. The students related their perceptions of the ill effects of second hand smoke to personal experience and information they had received from their parents and teacher.

Ill effects associated with tobacco use experienced by smokers

The study participants' perception of a cause and effect relationship between smoking, the use of marijuana, and the development of various ill effects was evident in the data. The ill effects of tobacco use found in the data were perceived as progressive in nature. The students' drawings and free descriptions of their perceptions of the ill effects associated with tobacco use included coughing, black lungs, cancer, brain injuries, and addiction. The students perceived that the development of a smoker's cough would result in an imminent death.

The students' perceptions that smokers can either develop a cough immediately after starting to smoke,

> *It is almost his first time, now he is coughing because he is smoking...that is smoke like when he is coughing, like when you go um (blows air forcefully out of his mouth to demonstrate what the person in the picture would actually be doing), then smoke comes out. You know (Participant 17)*

or gradually after many years of smoking were accurate descriptions of real life experiences of smokers.

> *My dad started smoking when he was a teenager. I always hear him coughing...it hurts his lungs. When he is smoking he is usually coughing (Participant 16).*

The development of black lungs was found to be another ill effect experienced by people who used tobacco. Words used to describe the black lungs included black lungs as being bad, unhealthy, and resulting in the inability to do the things that they would like to do. The children saw the black lungs as a progression of the ill effects associated with the use of tobacco. The cough experienced by individuals using tobacco products is perceived as an indicator of the development of black lungs. The following exemplars illustrated the impact of the ill effects associated with the development of black lungs. Black lungs were the primary focus of one of the illustrations (Appendix H-Participant 16). She described the picture by stating,

> *These are two lungs. This is a lung of someone who is smoking (she points to the black lung). They might get sick and feel bad...My dad is able to do stuff, but I don't know about some other people because some other people might get sick and not be able to do the things they wanted to do (Participant 16).*

The second exemplar displays the speculation of the participants regarding the ill effects associated with the development of black lungs.

> *Black lungs, it black lungs, that's lung disease...Yeah, it's the nicotine, inside the person's lungs, then they get black lungs. They won't feel pretty good" (Participant 1).*

Black lungs resulted in a person's inability to breath or maintain the same level of activity that s/he had prior to smoking. The participant stated,

> *I think black, bad." The student stated that when you smoke it (lungs) goes black and is unhealthy. The person would not be able to breath (Participant 5).*

Students perceived that if people smoke they will have black lungs and they would not feel well. Smoking was described as something that,

> *...gives you bad lungs. It means, like when you smoke and sometimes it gets caught in your lungs and you can't get rid of it, they get all smoke, like there is a bunch of smoke in there and then you can't breathe as much (Participant 15).*

The development of black lungs is perceived as leading to the development of a cough that is indicative of further ill effects. The data unearthed students' perceptions that the ill effects of tobacco use resulted in changes in lifestyles of smokers. The lifestyles of individuals who were smoking changed with the development of coughing behaviors secondary to the use of tobacco. One participant described the person, who was smoking as probably feeling,

> *My dad said never start smoking. The person with black lungs will not feel too good...they would be coughing and not be able to run (Participant 3).*

The analysis of the data further uncovered students' perceptions of a direct cause and effect link between smoking and brain injuries. Persons using tobacco were perceived to have an inability to think or maintain their daily activities. Children described smoking as an unsafe activity. When asked why they thought smoking was unsafe the emphatic response of one of the study participants was,

> *Because every time you smoke you lose some brain cells... I read it in a book in the summer (Participant 8)*

Participant 9's illustration of a brain with an injury resembled that of an anatomy textbook. The drawing was a precise depiction of a stroke (Appendix J). His description of the meaning of his picture illustrated a direct cause and effect correlation between smoking and the development of a brain injury.

This is a brain, and these are the injuries when you smoke (pointing to the blood vessels and the blood leaving the vessel). It is black and red...I think it is blood. I saw a picture in a book. ... They start so they can't think.

When asked why he thought the injury happened, without hesitation he responded,

Because he smoked.

The direct correlation between smoking and brain injury also was illustrated in the following narrative.

It (the picture) just tells you about all the things that could result if you smoke. On T.V., they have commercials every time they do something with the smoke thing, they do every time. And it would give you (pause) it would stop your brain from working as much. There would be brain damage... Really bad, because there is a lot of smoke in their body and it is trying to get rid of it and if it can't get rid of it then you might get smoke in the brain. And then you can't think as hard. They won't be as smart as they were before because their brain won't work as much (Participant 15).

The participants who described a direct relationship between smoking and the development of brain injuries were both male. Their narratives also illustrated the influence of media on their perceptual development of cause and effect between smoking and brain damage. The impact of smoking was perceived as devastating by the students in the study.

The data also revealed that smoking was correlated directly with the development of an addiction. There were numerous exemplars from the data that illustrate this perception. The data disclosed that addiction was either immediate or progressive in nature.

...if you smoke once, you might have an addiction and then you will smoke all the time. (Pointing to the cigarette) That part means that if you try one cigarette you might get addicted to it (Participant 15).

... maybe, they might think they might stop and they think they will stop, and they get addicted and they can't stop (Participant 16).

The influence of personal observation of a family member who is a smoker is evident in the data. Addiction is an abstract concept that the Grade 4 students were able to describe throughout

their discussions of why family members may not have stopped smoking, even though the family member was aware of the harmful effects of using tobacco. One participant described how her direct observation of her father promoted her understanding that smoking was addictive. She stated,

> *he has tried different stuff to stop and it doesn't work...because he is addicted. I just figured it (addiction) out, as my dad was unable to stop even though he wanted to stop. I have learned about addiction by seeing my dad always smoking and he could not stop then I learned he was addicted to it (Participant 16).*

The statements made by family members also influenced the development of a participant's perception that smoking is addictive. This was evident in the participant's description of the difficulty people have in quitting smoking.

> *Like she shouldn't have started smoking...yeah like she is regretting that she started smoking because it is probably a hard habit to break. Somebody told me that (pause) my mom told me that it is hard to stop (Participant 7).*

Cancer was the lung disease that the Grade 4 students perceived as being directly linked to the use of tobacco. The progressive nature of the ill effects associated with tobacco use is seen in the student's statement,

> *Like if, they get starting to cough lots and like if they have to go to the doctor, they ask the person if they were smoking and if they say yes the doctor would explain that your lungs are going black. Like my step dad...he smokes a lot. She further describes the smoker as not feeling very well and sometimes you can get cancer (Participant 1).*

Another participant described his artwork by stating,

> *Well, there is one coughing, because he is smoking, and there is a cigarette, disgusting, and uh there is somebody dying (pointing to the grave)...from cancer...you get that from smoking (Participant 17).*

The analysis of the data unearthed that the Grade 4 students' perceived that smoking would ultimately result in death. This finding was consistent in data collected from students who are exposed to family members who are smokers, as well as, those who are members of families of nonsmokers.

Children who did not identify a family member who was a smoker described their drawings as depicting the ill effects of tobacco use resulting in an imminent death. The student described the nonsmoker as feeling bad,

> *Because he (pointing to the person who is smoking) might die from it (smoking)...his friend is smoking and is going to get sick and die (Participant 3).*

The inclusion of a grave in one of the drawings displayed the presence of death in the participant's perception of the progressive nature of the ill effects associated with tobacco use. When asked what he thought the person had died of he stated,

> *...smoking because like he lost percentive (sic) of his lungs, they would be pretty well all black ...from smoking (Participant 17).*

The perception that smoking resulted in the development of progressive illness and death is illustrated by a student's description of her father.

> *I think my dad is gonna get sick. Probably feels a bit sick , like my dad. I always hear him coughing...my dad hasn't gotten sick so far, he started when he was a teenager... they get addicted and then they can't stop...like he might get sick, he might get something that might kill him (Participant 16).*

The same participant also disclosed that tobacco use might be a method of committing suicide.

> *Some people smoke because they might want to kill themselves (Participant 16).*

The analysis of the data discovered that the development of students' perceptions of the ill effects associated with tobacco use were influenced by personal experiences, media exposure, classroom education, and their relationships with family members.

Origin of Children's Perceptions of the Ill Effects of Smoking

Children's exposure to other points of view and to conflicting ideas challenge him/her to rethink or review his/her own ideas. Their perceptions are a result of receiving information, examining the information, and challenging their ideas about the information they have received related to the use of tobacco (Clements, 1978; Frantz, 1966; Olson, 1992). Children's perceptions of tobacco use are influenced by the social culture in which they live. The influence of their classroom learning, personal development, media exposure, peers and most importantly family will be discussed.

Classroom Learning

The study found information provided in the classroom influenced the children's perception of tobacco use. The development of black lungs was identified as the as the major ill effect of tobacco use learned in the classroom. When asked where the participants had learned about black lungs responses included,

...in Grade 4...she (teacher) just told us about it (Participant 5).

I learned it (smoking is bad fro you) at school (Participant 9) and finally,

...unhealthy or something...it turns you lungs black...In class...Grade 4 (Participant 11).

The following exemplar illustrated the influence of classroom learning on the accurate development of children's perceptions related to health issues associated with the use of tobacco. The drawing is an accurate depiction of a stroke (Appendix J-Participant 9). When asked where he had seen the picture of the brain and learned about the development of brain injuries related to smoking he stated,

> *I saw he picture in a book and it was a brain...in my classroom...we wrote something about the brain in class and how it works (Participant 9).*

Media

The influence of media on perceptual development of children is evident in the data gathered in this study. The influence of tobacco/cigarette packaging continues to be influential in shaping children's perceptions of smoking, and the dangers associated with the use of tobacco. One student's illustration and explanation of her drawing disclosed the perception that there is a negative correlation between the use of tobacco and a sense of vulnerability.

> *It is a cigarette and it is white, and the white package usually has a boat and stuff on them. I think it is just because of the kind they are and it is because of the company that makes them (Participant 14).*

When asked why the company might put a boat on it she replied,

> *because they sell it at country stores and city stores and you might, it might have something in it that might cause something like that it won't go out in the water and it is dangerous (Participant 14) .*

Television is a medium that greatly influenced these children's perceptions of tobacco use. As stated by one participant,

> *It (the picture) just tells you about all the things that could result if you smoke. On T.V. they have commercials every time, they do something with the smoke thing. They do every time. And it would give you (pause) it would stop your brain from working so much. There would be brain damage...really bad, because there is a lot of smoke in their body and it is trying to get rid of it and it can't get rid of it then you might get smoke in the brain (Participant 15).*

The data collected in the study purports that the use of "No Smoking" signs in restaurants, doctors' offices, hospitals, and schools significantly influenced children's perceptions of smoking. The illustration (Appendix J- Participant 6) included a picture of a sign with arrows going in opposite directions. One of the signs was a green circle with a cigarette in the center with the alternate item being a red circle with a cigarette in the center and a line drawn through the center.

The student explained that the sign with the green circle indicates that people can smoke in that area, whereas the red circle indicates the area where there is no smoking. Students identified "No Smoking" signs as being beneficial to the public.

> *Because if people that are allergic to smoke or something, if they are eating or something if someone smokes over there they could breath it in...they could start coughing (Participant 6).*

Students described the significance of the "No Smoking" signs as increasing the public awareness of the dangers associated with smoking. "No Smoking" signs are seen as a public warning not to smoke.

Books were the third media source from which children gained information that shaped their perceptions. Participant 9 drew a picture of the brain with such detail that it could have come from an anatomy and physiology textbook. He stated,

> *...that the bleeding in the brain is a picture of the brain injury that resulted from smoking (Participant 9).*

The picture (Appendix H-Participant 9) provided the researcher with a deeper understanding of the participant's perception and the accuracy of this perception that could not be gained from the data gathered from a semi-structured interview alone.

Family

The importance of family was evident in the data collected in this study. Participants described their personal experiences with a family member who was using tobacco. They also described the influence of parental disapproval of tobacco use on the development of their perceptions of tobacco use. The participants experienced both direct and indirect influence of family members perceptions and activities on their perceptual development. The following

exemplars demonstrate the influence of family, mainly parents on Grade 4 students' perceptions of tobacco use.

> *My mom teaches or tells me that you can get cancer from smoking...with cancer or sometimes you get that twitching stuff, because my mom...she told me why they are going like that (Participant 1).*
>
> *My dad...he said that when you grow up, don't smoke (Participant 3).*

The participants identified that smoking was bad for you and that they would never smoke. Parental disapproval of smoking significantly influences the development of participants' negative perceptions of smoking.

The significance of the direct and indirect influence of family on children's perceptions was ever present in the data. Direct observation of a family member who was smoking made the ill effects from smoking a reality.

> *Like if, they get starting to cough lots and like if they have to go to the doctor, they ask the person if they were smoking and if they say yes the doctor would explain to them that your lungs are going black. Like my step dad... he smokes a lot...sometimes his teeth go yellow (Participant 1).*
>
> *...a little bit sick, like my dad, I always hear him coughing...because it hurts their lungs. When he is smoking he usually coughs...I think of my dad getting sick and then I cover my eyes to stop me from thinking about it because I don't want to think about my dad getting sick (Participant 16).*

Emotions Associated With Tobacco Use

Perhaps one of the most interesting findings in this study is that each of the participants expressed emotions of the persons in their drawings or their own emotions in relation to their illustration of persons they associated with their drawings. These emotions were both positive and negative in nature. Feelings of regret, unhappiness, vulnerability, loneliness, and anticipatory loss are the negative emotions that emerged from the data. Positive emotions experienced by

individuals using tobacco were expressed as, having a sense of belonging, being cool, being happy, and feeling relaxed. The sense of concern for others was also identified as a positive expression of emotion.

Negative Emotions Expressed in Grade Four Students' Perceptions of Tobacco Use

The feeling of regret emerged from the analysis of the data. The students perceived that people using tobacco wished that they had never starting smoking. The smokers thought that they would be able to stop, but now discovered that they could not. Thus they wished they had never started. There are feelings of remorse and sorrow. The following exemplars from the data illustrate the students' perceptions of regret being experienced by the people using tobacco.

> *She is grimacing... she wants to be happy but is not...because she started smoking and because she can't stop, maybe, and she want to stop maybe" (Participant 7).*
>
> *they might feel sorry for starting smoking because it hurts their lungs... and then they can't stop smoking... it makes them feel bad because they started smoking (Participant 16).*

The feeling of regret also was perceived as leading to feelings of depression and unhappiness.

> *I think that they might be a little depressed and that they are bored (Participant 14).*
>
> *He is unhappy (Participant 16).*

The negativism associated with tobacco was heard in the participants' descriptions of vulnerability experienced by non-smokers when they are in the presence of someone who is using tobacco. Participant 8 described the two boys in a field who were not friends. He supported his perception with his statement that they are:

> *...not friends because if they were the boy with the tobacco would not be trying to get or trying to ask the other boy if he wants to have some tobacco." The boy who does not want the tobacco is feeling "nervous and afraid." "He (the person without the tobacco) has a worried expression...because he doesn't want to take any tobacco (Participant 8).*

The participant's description portrays a situation in which the one of the boys in his drawing was experiencing peer pressure, while the boy with the tobacco was displaying bulling behavior. This participant also described the boys' actions as being unsafe. However, he was uncertain about why the boys in the drawing were unsafe.

The fire from the cigarette was perceived as a causative agent of larger fires in the garbage can or peoples' homes. When asked if they felt the fire could be dangerous, the students responded," yes." The vulnerability of the students and people they know related to fires started by smoking is evident in the drawing and the description of the artwork.

> *They could throw it in the garbage cans and it starts burning. There was a fire and in the apartment block and we had to go downstairs in our pajamas on (Participant 1).*

The influence of personal experience was present in Participant 1's description of her perceived vulnerability. Her drawing included a grey garbage bin with flames coming from the center. Originally, the researcher perceived the garbage bin as a barbeque, however she was corrected by the participant's description of her drawing.

The data also disclosed a sense of vulnerability related to smoking cigarettes. The cigarette package was described as being representative of the tobacco company. Her perception of vulnerability was directly related to the fire risk associated with smoking.

> *...might have something in it that might cause something like that it won't go out in the water and it is dangerous (Participant 14).*

Feelings of vulnerability were not only seen in the data, but also were evident in the voices of the participants. Participant gender and direct relationship with a family member who was a smoker did not influence what participants disclosed regarding a sense of vulnerability. One of the participants disclosed that his perception was something he had just thought of.

The following narratives illustrate the feeling of loneliness as another negative emotion experienced by persons using tobacco.

> *... his other friends don't take tobacco so the other boy is trying to make him like it (Participant 8).*
>
> *...he is angry... his friends ... they left him... because he is smoking... they don't want to be around him (Participant 12).*

In addition the importance of peer relationships became evident.

The students concern for smokers was not only seen in the tension of their shoulders but was also heard in the tone of their voices. Concern of nonsmokers for smokers was related to their expression of anticipatory loss.

> *I think of my dad getting sick and then I cover my eyes to stop me from thinking about it because I don't want to think about my dad getting sick Like he might get sick, he might get something that might kill him" (Participant 16).*

The explanation of the relationship between two friends in one of the drawings (see Appendix H-Participant 3) illustrated the feeling of anticipatory loss.

> *He (the non-smoker) is thinking that he (points to the person using tobacco) shouldn't do that ... because his friend might get sick and is going to get sick and die (Participant 3).*

Anticipatory loss experienced by a smoker is perceived as a factor that could make a person stop smoking.

> *...they don't want to stop until they are older...when they are old enough that the smoke can actually affect their health and they might die (Participant 14).*
>
> *Uh, my step dad ...he smokes lots...but he doesn't smoke around me he goes to the spare room" (Participant 1).*

Positive Emotions Expressed in Grade Four Students' Perceptions of Tobacco Use

The positive emotions expressed in the Grade 4 students' perceptions of tobacco use included concern for others, parental concern for their children. Other positive emotions included a smoker's sense of belonging, being cool, and a sense of enjoyment or happiness.

The use of "No smoking" signs in restaurants was perceived as an illustration of public concern for others. The significance of "No smoking" signs was heard in one participants' comments,

> *...because if people that are allergic to smoke or something, if they are eating or something, if someone smokes over there (pointing to the green arrow) they could breathe in the air...they could start coughing but if they sat over there(pointing to the red arrow) they would not start coughing(Participant 6).*

Parental concern for their children was displayed in the participants' descriptions of parental behaviors that limited their children's exposure to smoke.

> *My dad usually tells me to go sit somewhere else so that the smoke doesn't go into my face...it doesn't bother me when he is a little bit away, but in the car it is kind of does, and he opens his window, then it blows, goes out" (Participant 16).*

The sense of belonging and being cool, were positive emotions were perceived as being experienced by people who were smoking. The sense of belonging was illustrated with the rationalization that,

> *...he (her father) started when he was a teenager because he wanted to be like his friends. People start smoking so they can be like lots of people, they might think it is cool so they start smoking" (Participant 16).*

Individuals began smoking,

> *Just to be cool with his friends and all that. He is with his friends...about eight of them. They are smoking too. They started before him, like at 16 or 13. They are acting funny, laughing at him...like in a back alley with his friends and all that." It sounds as if this student is describing a group of friends hiding their behavior that will be discussed in relationship to the image of the smoker (Participant 17).*

One of the themes that emerged from the data was the perception that some people smoke because it makes them happy.

They just enjoy it (Participant 5.,

I think he is happy...cause he likes tobacco (Participant 10).

It makes him feel relaxed...because he told his parents why they were smoking and his parents says it feels relaxing (Participant 8).

Cognitive dissonance was displayed by the students' descriptions of positive emotions and consideration that was displayed to non-smokers by people using tobacco. All the participants identified that the use of tobacco was negative. However, students who had family members who were smokers were able to separate the bad behavior of smoking from the image of the person using tobacco. The quick response and the emphasis of the positive behavior displayed by the person using tobacco suggested children's beliefs that the negative or bad behavior or tobacco use is separate from the image of the person who is smoking. Even though the person was smoking, they were not bad. Generally children of this age equate the nature of the behavior with the personality of the person displaying the behavior (Thompson & Gustafson, 1999). They could not depict their family members who used tobacco as being a bad person. The inconsistency between these beliefs displayed situations of cognitive dissonance (Baron, Byrne, & Watson, 1999). Once again, the significance of the social cultural influence of family was exemplified.

Valuing of Smoking and Smokers

The analysis of data disclosed value laden perceptions of smoking and smokers. Negative perceptions of smoking were expressed by both students who do and do not have family members who are smokers. Students described smoking as disgusting.

> Researcher: *You have an X through this one (pointing to the cigarette wit an X through it).*
>
> Participant: *Yeah that is my opinion…I think you should not smoke because it is disgusting (Participant 17).*

A perception of the smoker being grossed out or embarrassed by the effects smoking has had on the smoker is found in the data. The participant states,

> *…they would be grossed out, with the yellow teeth. Like sometimes they won't want to smile or show their teeth, um they will get embarrassed with their teeth…sometimes his teeth go yellow but he has to brush his teeth right away (Participant 1).*

The participants' descriptions of the behaviors demonstrated by the individuals using tobacco illustrated that the students perceived people using tobacco as being bad. Tobacco is bad, thus the person using tobacco is bad. Two negative images that emerged from the analysis of data included the image of deceptive or mean individuals.

Deceptive behaviors were used as a method of tricking other people. The negativity of the characteristics of individuals using tobacco products or smoking was exemplified by the repetitive use of the term "bad" to describe the person.

> *He is bad. He always tricks everybody. He is always tricking everybody…people…his mom, uh, the restaurant waiter…He takes…the food and money from the restaurant. I think he is feeling badly because he is tricking. When asked if he was by himself the response was yes because he was tricking everyone (Participant 10).*

Deception was also seen in a young man trying to hide his smoking behavior from his parents.

It is spring time at night...so nobody would see them...because he would get into trouble with his parents. He is with his friends...like in a back alley with his friends. They are smoking too. They started before him, like at 16 or 13. They snuck them (cigarettes) from their dad or their mom (Participant 17).

The negativity associated with the students' perceptions of people who were smoking was illustrated in the use of "mean" as an adjective used to describe the smoker. The direct link between smoking and an image of meanness is displayed in Participant 3's response to a question of whether either of the young men in her drawing could be her friend.

No, only that one (pointing to the person that is not smoking). Cause the other one might be mean...be drunk (Participant 3).

Her distinction between whether or not either of the men could be her friend was determined by whether or not the man was smoking. Both of the people in the drawing were going into the bar, but the only one that could be mean and drunk was the person who was smoking.

One drawing (see Appendix H-Participant 13) illustrated a muscular individual with his fists clenched at this side. The portrayal of a mean individual was apparent. The description of the person in the drawing supported this mean image.

He wants to fight somebody (Participant 13).

The meanness of the individual with tobacco was implied with the student's description of peer pressure and bullying behavior of the boy with the tobacco. The drawing illustrated an interaction between two boys in the park (Participant 8).

Participant: *This boy (pointing to the boy with the tobacco) is trying to make this other boy (pointing to the boy without the tobacco) take some tobacco but he says no thank you.*

Researcher: *...when you look at the interaction, are they (the two boys in the drawing) friends do you think?*

Participant: *Nope...because then he would not be trying to make his friend take tobacco...his other friend don't take tobacco so the other boy is trying to make him like it.*

Researcher: *...when he is saying, "no thank you" how do you think he is feeling?*

Participant: *Nervous...I don't know, afraid...he has a worried expression, because he doesn't want to take any tobacco (Participant 8).*

The description of this situation exemplified the presence of peer pressure and bullying behavior in which the person with the tobacco was trying to force the other child to do something he did not want to do.

Another student described a situation in which the participant was in Robin's Donuts coffee shop when a lady who was smoking sat in front of her. The smoke from the woman's cigarette went into her face. Her father encouraged her to move away from the person and sit somewhere else so that the smoke did not go into her face (Participant 16). The woman's behavior illustrated inconsiderate behavior of someone who was smoking towards a nonsmoker. The data from the semi-structure interview also purported that the parent of the child displayed considerate behavior in encouraging her to move away from the person, and sit somewhere else so that the smoke did not go into her face.

In contrast to the negative depictions of persons who are using tobacco, two participants, who have family members who use tobacco, described behaviors that implied people using tobacco were both nice and considerate.

my dad smokes lots but he doesn't smoke around me, he smokes in the spare room...(Participant 1) and,

...he opens the window then it blows, goes out...(Participant 16).

The student's positive relationship with and concern for her father's girlfriend was evident in the comments regarding her father's girlfriend.

Sometimes I think of his girlfriend. She smokes too... because she smokes I feel bad, because she is really nice (Participant 16).

The participants who had family members who used tobacco identified that the use of tobacco was negative, but were able to separate the bad behavior from the image of the person using tobacco. The quick response and the emphasis of the positive characteristics of the person using tobacco suggested children's beliefs regarding the negative or bad behavior of smoking was separated from the image of the person who was smoking. Children who did not have a family member who was a smoker were unable to make the same distinction. The influence of family on the development of perception was evident.

Summary of the Chapter

This chapter has discussed five major themes from the study i) Activities associated with tobacco use, ii) Ill effects of tobacco use, iii) Origins of children's perceptions, iv) Emotions associated with tobacco use, and v) Valuing of smoking and smokers. The richness of the data was enhanced with the use of drawings. The data also revealed the importance of growth and development, family, classroom learning, and media in the shaping children's perceptions. Symbolic interactionism supports this perspective in which one's perception is based on the values and beliefs that are developed within the individual's lived experience. While all the participants perceived tobacco use as a negative behavior, the children who had family members who smoked were able to separate the negative behavior of smoking from the personality of the smoker.

Chapter Five

Discussion

The research findings of the study will be discussed within the context of the conceptual framework of symbolic interactionism. The discussion will focus on the relationship of the findings to the cognitive and perceptual development of the students and the social cultural factors influencing the students' perceptions of tobacco use. Results reported in the literature will be discussed in relationship to the findings of this study. The chapter will continue with a discussion of implications for nursing practice and health education, and will conclude with recommendations for future nursing research.

Conceptual Framework Revisited

The findings from the study were interpreted through the use of the conceptual framework of symbolic interactionism. The Grade 4 students' perceptions of tobacco use evolved from their exposure to a variety of circumstances, in particular, to interactions with their parents, classroom learning, and media advertisements. The growth and developmental stage in which the participants are progressing allowed the children to receive information about tobacco use from a variety of sources, interpret the information, and develop their perceptions of tobacco use. Children, age nine and ten years, made direct correlations between the negative activity of smoking and the development of illness. The children were able to describe the progression of ill effects of smoking or being exposed to second hand smoke, but were unable to describe the physiologic changes that were occurring within the body. These findings are consistent with Piaget's developmental stage of concrete operations and the beginning of abstract thought (Piaget, 1955; Olson, 1992; Thompson & Gustafson, 1999).

The need for affirmation by children between the age of 7 and 11 years is related to their desire to be correct and to know the rules they are to follow (Malchiodi, 1998; Piaget, 1976). Even though all the students were informed of the "rules" of the study, the need for affirmation was displayed by the students' questions of "Can I use these (pencil crayons, markers) to draw my picture?" or "Can I draw a person?" These questions emerged repetitively throughout the interviews. Another student demonstrated the need for affirmation in his question regarding whether or not his drawings would be shared with his teachers or classmates. When informed that the researcher would not be sharing the pictures with his classmates or teachers, the student continued to draw and drew a picture of a marijuana joint. The children must feel safe in drawing their perceptions (Malchiodi, 1998; Olson, 1992;Thompson & Gustafson, 1999). The implicit fear of criticism or of having knowledge of an illegal product is congruent with the school-age child's desire to be accepted and to follow the rules set out by their environment (Piaget, 1976; Malchiodi, 1998).

The participants' desire to have their drawings depict reality is also characteristic of Piaget's developmental stage of concrete operations. School-age children still have the ability to imagine, but they also have a need for their drawings to depict reality (Malchiodi, 1998; Olson, 1992). One participant attempted to draw a person with spike hair. He felt the hair did not "look right," thus he coloured over the spiked blue hair with a black marker (see Appendix J-Participant 17). When a participant felt unable to draw part of his/her perception to depict realism s/he did not include the item in his/her drawing.

The importance of family in shaping the perceptions of children is evident in this study. Sargent & Dalton (2002) purport that parental disapproval of tobacco use will discourage children from initiating the use of tobacco and enhance their ability to resist the influence of peer smoking.

The parental disapproval of tobacco use in this study greatly influenced the students' perceptions of the ill effects and the importance of no smoking areas, and the risks associated with being exposed to second hand smoke.

Direct observation of a family member smoking made the ill effects of tobacco use real. Participants described family members as coughing, developing yellow teeth, being grossed out and developing black lungs. The data disclosed participants' direct observations of parents who were smoking as influencing their perceptual development related to all five themes disclosed in this study, as well as, the significance of ill effects

The assertion that family influences children's perceptions of tobacco use is supported in the literature (Armstrong et al., 1990; Gillis, 1994; Harvey et al., 1998; Patton & Carlin, 1998). Harvey et al. found that 71% of all females who smoke and 70% of all males who smoke have at least one of a father, mother, sibling, or close friend who is a smoker. In contrast to these behaviors discovered in the previous studies, all the Grade 4 students of this study described smoking as being detrimental to your health and they identified that they would never smoke. It would be interesting to see if their perceptions change with maturity.

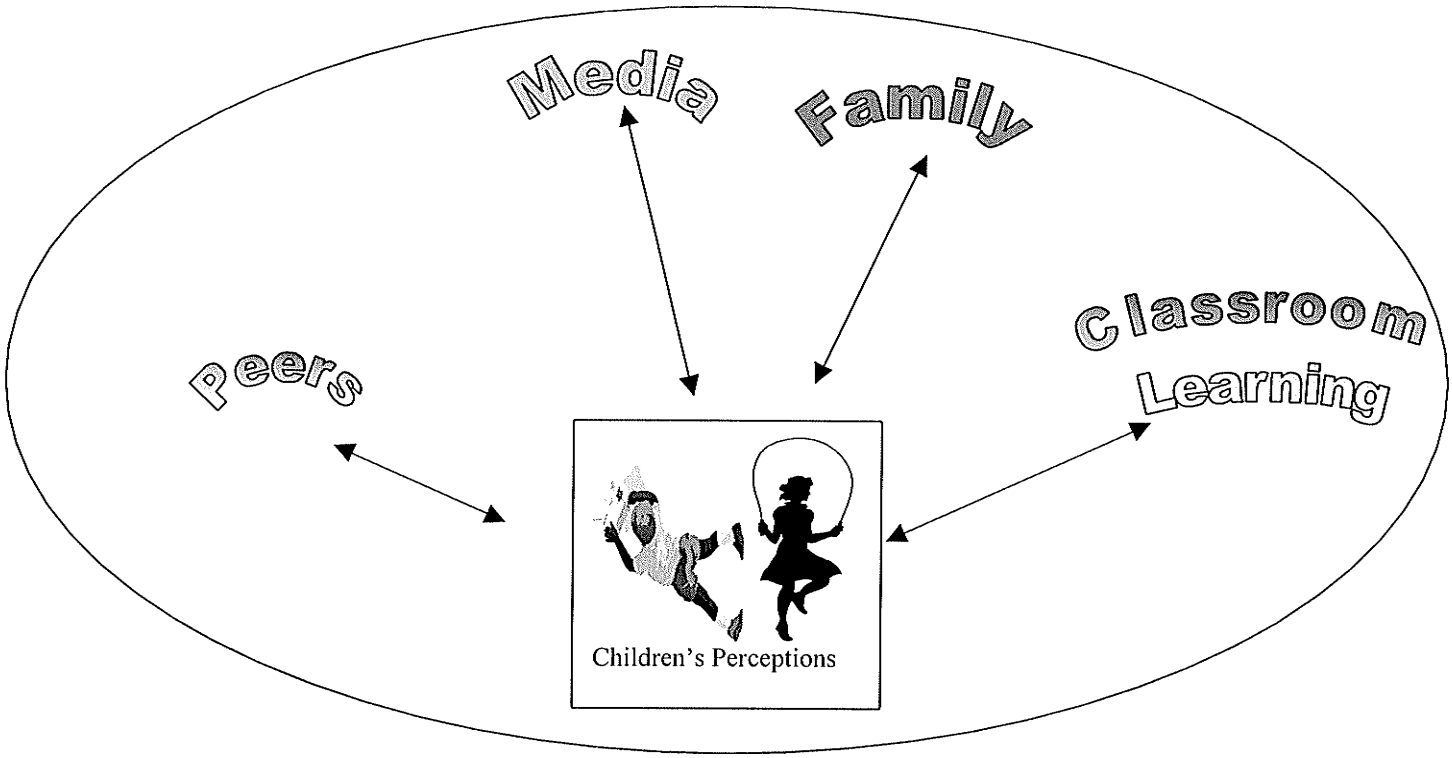
The influence of classroom learning is also evident in this study. The ill effects of smoking that were identified by the study participants were consistent with the ill effects that are included in elementary school primary prevention programs related to smoking within the province (Canadian Cancer Society, 2001; Manitoba Department of Education Grade 4 Curriculum, 2000; Manitoba Lung Association, 1998). According to the study participants, the most common ill effect of smoking was the development of black lungs. The ill effects of brain

injuries, cancer, and the symptom of coughing also were identified as ill effects learned in the classroom.

The influence of media on perceptual development of children is evident in the exploration of Grade Four students' perceptions of tobacco use in this study. Television anti-tobacco advertisements assisted in shaping the development of children's perceptions of tobacco use. Students stated that they had learned all the information about the ill effects of smoking from watching television. Sargent et al. (2001) identified that smoking in films has a role in initiation of smoking in adolescents. Unfortunately, there are no health or education research studies that have studied the impact of non-smoking or anti-tobacco advertisements on children's perceptions of tobacco use. Sibbald's (2002) study revealed smoking rates in Canada dropped 5% in five years. However, Manitoba and Prince Edward Island continue to have the highest smoking rates. The decline in smoking is purported to be a result of increased tobacco taxes, decreased tobacco advertisements, and increased advertisements depicting the ill effects of smoking. Data from this study disclosed the perception that advertisement on the cigarette packages and no smoking signs warn the public not to smoke.

The qualitative methodology used in this study allowed for the development of a model capturing the influences shaping children's perceptions to emerge from the data. As previously stated, the data of this study revealed family, media, and classroom learning as the main factors influencing students' perceptions of tobacco use. The influence of peers was perceived to be significant related to the initiation of smoking behavior and the willingness of students to share their perceptions in their drawings. The consistency of the anti-smoking message provided by parents, teachers and the anti-smoking advertisements, with the absence of advertisements promoting the use of tobacco strengthens the health promotion strategy to remain smoke-free. The

influence of the participants' social interaction with family, media and learning in the classroom environment displayed the second premise of symbolic interactionism.



Linkage of Research Findings with the Literature

Literature in health education, nursing, and education research were consulted in order to situate the study within the context of what was know about the development of children's perceptions of tobacco use. There was limited research related to school-aged children's perceptions of tobacco use. The literature discussed in Chapter Two will be integrated in discussion of the five themes that have emerged from the data.

Activities Associated with Tobacco Use. As with the education, health education, and nursing literature smoking cigarettes is the primary activity associated with the use of tobacco (Abernathy et al., 1992; Armstrong et al., 1990; Delfino, 2001; Edwards et al., 1992; Elders et al., 1994; Feeg,

2000; Flynn et al., 1995; Ganley et al., 1998; Gillis, 1994; Harvey et al., 1998; Health Canada, 1996; Johnson, Donglin, Perry, Elder, Feldman, Kelder, & Stone, 2002; Merril et al., 1995; Patton & Carlin, 1998; Sargent, Beach, Dalton, Mott, Tickle, Ahrens, & Heatherton, 2002; Schooler et al., 1996; Sequire & Chalmers, 2001; Sibbald, 2002; World Health Organization; 1997; Xu, 2002). A unique finding in this study was the perception that the use of tobacco was equated with the use of marijuana. There are two possibilities for this. The students who identified the use of marijuana may have personal exposure to people using marijuana or, as stated, they may have seen the use of marijuana on television or in advertisements depicting the effects of illicit drugs on the brain. There are no previous studies that identify marijuana use as an activity associated with the use of tobacco. Thus, further exploration of factors influencing the development of children's perceptions that marijuana use is equated with tobacco use is recommended.

The use of chewing or smokeless tobacco did not emerge as part of the children's perceptions of tobacco use. The environment in which the participants live may not expose them to the use of smokeless tobacco exemplifying the influence of environmental factors on the perceptual development of children.

Causal Links Between Ill Effects and Tobacco Use. The participants' ability to describe the progressive nature of the ill effects of smoking is a display of their ability to move beyond the momentary perceptions, to thinking that includes multiple aspects of the situation, including temporal elements. The participants were able to describe the ill effects that can result from the use of tobacco, but were unable to describe the physiological changes that would occur within the lungs as damage to the lungs. This finding illustrates the children's progression through Piaget's developmental stage of concrete operations (Malchiodi, 1998; Short, 1991; Piaget, 1954; Thompson & Gustafson, 1999; Walsh & Biblace, 1990).

The ill effects experienced by smokers and nonsmokers exposed to second hand smoke which emerged from the data are consistent with the ill effects included in elementary school primary prevention programs related to tobacco use within this province (Canadian Cancer Society, 2001; Manitoba Department of Education Grade Four Curriculum, 2000; Manitoba Lung Association, 1998). Participants in this study repetitively discussed the development of black lungs as being a direct result of smoking. This finding is consistent with the ill effects discussed in previous nursing and education research studies related to smoking (Abernathy et al., 1992; Armstrong et al., 1990; Xu, 2002). The findings of this study revealed students' perceptions that smoking resulted in the development of untoward consequences including, not only the development of a cough, black lungs, and cancer, but also an imminent death. As the researcher was not in attendance when the health education related to smoking was provided to the students, it is difficult to ascertain whether or not these perceptions are a direct restatement of knowledge gained from classroom learning. It is possible that the teacher discussed that smoking leads to death. However, it is also possible that students are making a direct correlation between an activity that is perceived to be bad or negative resulting in death. The third possibility is that the students could be displaying signs of the initial stage of logical deduction. Not all the students identified that death would result. Thus some students may be more cognitively developed and able to use logical deduction. The researcher's attendance in the health education classes discussing the use of tobacco would have assisted in gaining a better understanding of the factors that may have influenced the students' perceptions of tobacco use.

Blumer (1969), Charon (1989), and Chenitz and Swanson (1986) description of symbolic interactionism supports the belief that students with family members who smoked receive and process the information differently than those without a close relationship with a smoker. These

students receive the information, process the information related to their personal experiences rather than an imaginary person, and challenge their own ideas about the negativity of smoking and or being a smoker. The significance of the ill effects directly related to smoking has greater meaning because it is real. They are directly observing a person who is important to them, displaying the untoward consequences of smoking. The student's fear associated with the realism of the ill effects is illustrated through the participant's coping strategy of covering her eyes so that she would not have to think about it (Participant 16).

Teaching children about the ill effects of tobacco use has many benefits. As health educators we also must be aware of the perceptions of the individuals in the audience/classroom. The children who have significant others who smoke are more vulnerable to the development of anticipatory loss of an important person in their lives. As health educators we need to be attentive to the needs of the audience and assess for the need to debrief with students. This awareness will allow the health educator to provide teaching, while at the same time comfort those who have conflicting views and feelings of discomfort related to the topic of ill effects that result from smoking. These actions demonstrate respect and concern for the student. Firstly, this interaction promotes the child's willingness to share his/her perceptions and misinterpretations of the information related to the ill effects of smoking (Malchiodi, 1998; Olson, 1992). Secondly, the correction of misinterpretations and provision of comfort will reduce the psychological stress students may experience secondary to anticipatory loss.

Emotions Associated With Tobacco Use. The emotions associated with tobacco use were both positive and negative in nature. Natapoff (1978, 1989) found that children begin to internalize illness about the age of 9 years. Fourth graders develop concern for their bodies, their health, and the health of others (Natapoff; Malchiodi, 1998; Thomposn & Gustafson, 1999). The feelings that

emerged from the data included the perception of feelings of regret, unhappiness, vulnerability, loneliness, and anticipatory loss demonstrate the Grade 4 students' ability to internalize illness and concern for their own bodies, their health and the health of others. The students based their perceptions of smokers' feelings of regret for starting smoking on either speculation or personal exposure to family member who are smokers. The identification of regret experienced by the smoker is consistent with the findings of previous studies (Henningfield, Michaelides, & Sussman, 2000; Sequire and Chalmers, 2000).

Students' perceived sense of vulnerability were directly correlated with peer pressure/bullying behavior or exposure to a fire that was caused by smoking. Previous studies (Johnson, 2001; Mack, 1995; Sibbald, 2000) discussed the dangers associated with fires caused by smoking. Thus the danger of fires related to smoking is real. The expression of the students' perception of vulnerability exemplifies the importance of dialogue and role-playing about peer pressure and child safety. Practicing an activity reinforces information taught in the classroom and increases the students' confidence in performing the task (Readman, 1997; Beale, 2001). Peer pressure is a reality. Educators can provide creative opportunities for students to practice responding to situations in which they may be uncomfortable. The classroom is a safe environment in which they students can practice their response to peer pressure and strategies to respond to unsafe situations. In turn, this will assist in preparing them to respond to situations outside of the classroom.

The students' concerns for smokers within their family and their anticipatory loss requires health educators to be aware of the perceptions of their audience. There is a concern related to the potential emotional discomfort that could be experienced by students who have significant others

who are using tobacco. Children who are living with people who use tobacco may perceive death to be imminent, and the discussion of these thoughts could be anxiety provoking. The researcher questioned whether the benefit of gaining this information from the student was greater than the anxiety that the discussion caused to the participant. The benefit of exploring students' perceptions of tobacco use was confirmed by the willingness of the participants to share their drawings and verbal description of the meaning of their drawings. Knowledge of these anxieties and fears of Grade Four students heightens the importance of being sensitive to the learner and having dialogue with students when completing health teaching (Malchiodi, 1998; Olson, 1992).

The sense of belonging, being cool, pleasure in using tobacco, and feelings of relaxation are the positive emotions the participants perceived smokers to experience. These emotions are the common emotions expressed in previous studies (Armstrong et al., 1990; Doueck et al., 1988; Harvey et al., 1998; Johnson, Donglin, Perry, Elder, Feldman, Kelder, & Stone, 2002; Kegler et al., 1999; Sequire & Chalmers, 2000). The need to belong to a group is consistent with the school age and adolescent populations' needs to belong. The sense of belonging was described as a determining factor that influenced teenager to start smoking (Johnson et al.; Kegler et al.; Sequire & Chalmers). The challenge for health educators is to change the image of smoking from being cool to being uncool. Students' perceptions that the reason people continue to smoke are because smoking causes them to feel relaxed and they like it (smoking) is supported by the literature (Kegler et al., 1999; Sequire & Chalmers, 2000).

Valuing of Smoking and Smokers. Fegg (2000) and Kegler et al. (1999) studies are congruent with the findings of this study, and describe the image of smokers as being mean and deceptive. The direct correlation between the perceived "bad" behavior of smoking and the person displaying the behavior as being mean or deceptive is a display of the Piaget's developmental stage of concrete

operations (Piaget, 1954; Thompson & Gustafson, 1999). The difficulty with these preconceived judgements is that the children may wrongfully identify people they know who smoke as being bad. Children who have family members who smoke described these individuals as caring and nice. Their experiences challenged the common belief of the school-aged child that correlates bad behavior or smoking with negative personality characteristics (Piaget, 1954; Thompson & Gustafson, 1999). Baron et al. (1999) assert that children who display the ability to separate a negative behavior from positive characteristics of the person who is smoking is at risk for experiencing cognitive dissonance. Cognitive dissonance challenges participants to move from the developmental stage of concrete operation in which negative behaviors are equated with negative personality traits to more of an abstract thought where behaviors and personality traits can be separated

Significance to Nursing Practice and Education

The significance of this research study is the finding that the use of drawings in combination with semi-structured interviews resulted in an expanded breadth and depth of data related to children's perceptions of tobacco use. Pictures are a snapshot of the person's inner thoughts, and provide the researcher with the ability to develop an understanding of children's perceptions of both positive or negative health behaviors (Stein, 1997). The use of drawings relaxes many children and provides them with a creative method of sharing information about their perceptions (Malchiodi, 1998; Olson, 1992). There were no other nursing or education research studies that have used drawings to explore children's perceptions of health related activities. The drawing acts as a springboard from which to start the interview. It also provides an alternative method of providing data when the verbal mode is no longer able to provide information and insight into children's perceptions.

Similarly, the use of the semi-structured interviews in combination with the drawings provides participants with an alternative method of describing their perceptions of tobacco use, thus expanding a researcher's insight into the meaning the participants give to their drawings. The use of the semi-structured individual interviews promoted the participants' free descriptions of their drawings and their perceptions. On one occasion, one of the participants drew a pair of lungs. One black lung and one partially pink lung (see Appendix H-picture 16). The data that came from the interview about the drawing included ill effects of a cough, black lung development, and possible development of cancer that could lead to the death of a parent. Throughout the interview the participant describe the personality characteristics and behaviors of the person living with the black lungs, as well as her depth of concern for, not only this individual, but also his girlfriend because she was a smoker as well. The participant continued with a description of her allergy to smoke and strategies that her family uses to decrease her exposure to smoke. Her sense of anticipatory loss was evident in her discussion of her fear that her father and his girlfriend could become ill and die. When a participant felt unable to draw a realistic depiction of his/her perception s/he did not include the item in his/her drawing. Thus, the use of drawings in combination with semi-structured audio taped interviews proved to be an effective method of gathering data from the pediatric population.

This study unearthed a variety of perceptions of tobacco use. The Grade Four students' perceptions differed from older students in that these students did not identify the use of chewing tobacco/smokeless tobacco as an activity associated with the use of tobacco. Secondly, the negativity of children's perceptions of tobacco use was more intense and further to these differences, two participants of this study equated the use of tobacco with the use of marijuana.

This is a finding that was not previously identified in the literature. The number of participants of the study is limited thus this discovery must be used with caution.

Anti-tobacco advertisement was one of the factors that influenced the participants' perceptions of tobacco use. Previous studies revealed that tobacco company advertisement influenced the adolescent population perception of tobacco use and promoted the initiation of their use of tobacco (Armstrong et al., 1990; Elders et al., 1994; Flynn et al., 1995; Henke, 1995; Sargent et al., 2001; Schooler et al., 1996). In contrast, this study found that the anti-tobacco/health promotion advertisements promoted a negative perception of tobacco use. The participants found that smoking and the use of tobacco resulted in illness and possibly death. The data suggested that the impact of the media was significant in providing the population with vivid images of the ill effects associated with smoking. Knowledge of the impact of media on children's perceptions could prove to be extremely useful in shaping perceptions that will impact health behaviors of the population. The significant effect of the negative outcomes of smoking was reinforced throughout the data. It appeared that the negative impact of smoking was of greater relevance than the positive impact of people remaining or becoming smoke-free. Persuasive communications of the ill effects of smoking in the media advertisements independently influence a person's perceived vulnerability, perceived severity, and response efficacy (Courneya & Hellsten, 2001). The media advertisements of ill effects directly linked to smoking are the fear arousing stimuli that seek to eliminate or prevent response patterns that might produce aversive consequences. The significance of these findings is that advertisements need to be realistic to be effective (Courneya & Hellsten, 2001). Realism is a key element to effective primary prevention related to tobacco use (Abernathy & Bertrand, 1992; Flynn et al., 1995). These findings must be used cautiously as the number of participants in the study was

limited. The use of fear must also be used cautiously as it could emotionally traumatize a young person who has a family member who is smoking. Furthermore, the use of fear could also incapacitate the person in his/her ability to change or make decisions that could impact his/her health status. As health educators focusing on primary prevention of tobacco use one must be sensitive to the learner and the learner needs to be effective.

Recommendations for Future Nursing Research

The exploratory nature of the study unearthed children's perceptions that had not been previously discussed in the literature. The study provided a glimpse of Grade 4 students' thoughts and value-laden perceptions of smoking and smokers. The exploratory research design also lead to a number of recommendations for future nursing research studies.

This study has begun to uncover the success of using drawings in combination with semi-structured individual interviews to gain an understanding of children's perceptions of health related issues and behaviors. The use of drawings in combination with semi-structured interviews as a data collection method needs further exploration. The benefits of the use of drawings as a tool to further data collection with children was evident in this study, but the limited use of this methodology, requires further use to identify the benefits and limitations of this method of data collection. This work would augment the knowledge available regarding data collection methodologies appropriate for use with children.

The literature indicates that an understanding of children's perceptions of health education topics is essential for primary prevention programs to be effective (Abernathy & Bertrand, 1992; Davis & Jones, 1996; Flynn et al., 1995; Pridmore & Lansdowne, 1997). Thus, it is recommended that exploratory studies of children's perceptions of exercise, healthy eating, and positive

relationship development with the use of drawings and semi-structured individual interviews be conducted.

Through the use of drawings and semi-structured interviews a model illustrating the influence of social culture on perceptual development emerged from the data. Further studies using the model to delineate more explicitly the components and processes specific to children's perceptual development of health behaviors are recommended. The social culture includes peers, media, family, and classroom learning as the factors that influence perceptual development. Media includes advertisement both audiovisual (television or radio) and printed materials (billboards, newspaper, and books). The literature does not include any nursing, health education or education research studies that focus on the impact of healthy lifestyle choices on children's perceptions. Therefore, it is recommended that studies be conducted to explore the impact of health promotion media campaigns on children's perceptions of healthy behaviors. Studies could explore children's perceptions of being smoke-free, exercising, healthy eating, and developing positive relationships. This study of Grade 4 students' perceptions of tobacco use suggests that a study comparing the impact of positive versus negative advertisements on perceptual development and choices of health behaviors made by young people would be beneficial.

Perception changes over time. Thus, a longitudinal study, whose primary focus is to explore the changes in the perception of participants over time, could provide further understanding of the development of children's and adolescents' perceptions of smoking, and other behaviors impacting one's health. The second stage of the longitudinal study should focus on what factor of social culture is most influential in shaping the perception during the different life stages. This increased understanding could promote enhanced development of effective strategies focusing on the primary prevention health education within educational institutions.

The influence of parental behaviors on perceptual development and the health behaviors chosen by children is supported by the findings of this study, as well as previous studies in the field of nursing and education (Armstrong et al., 1990; Doueck et al., 1988; Gillis, 1994; Harvey et al., 1998, Kegler et al., 1999; Norland & Kroll, 1996; Palank, 1991; Patton & Carlin, 1998; Sargent & Dalton, 2001). Further exploration of the influence of parent child relationships on children's choices of health behaviors would expand understanding of parental influence on children. The study should explore the choices of health behaviors made by children who have a positive versus a negative relationship with their parents. The present research does not discuss the nature of the parent child relationship, but rather consistently identified the parents' strong influence on health behaviors of their children. The research findings also uncovered the need for further research examining the impact of parental disapproval of smoking on children's perceptions of smoking. A longitudinal study exploring the influence of parental disapproval on whether or not the individual would remain smoke free would demonstrate how the social culture influences, not only the perceptions of children, but also their choice of health behaviors.

As previously stated, there is a need for further exploration of the perception that tobacco use is equivalent to the use of marijuana. The study could explore the social cultural factors that shape this perception in children. Knowledge gained from such a study could enhance health educators' understanding of the meaning people give to the use of tobacco and marijuana.

Conclusion

This study presented an opportunity to use a new research methodology of drawings in combination with semi-structured interviews to gain an understanding of children's perceptions of tobacco use. The drawings provide a snapshot of children's perceptions. When used in

combination with semi-structured interviews the richness of understanding children's perceptions was enhanced.

Symbolic interactionism is a useful conceptual framework through which the exploration of children's perceptions and perceptual development can be conducted. The study offers a glimpse of children's perceptions of tobacco use and factors influencing the participants' perceptual development that emanate out of the lived experiences of the study participants. Participants' interactions with parents, classroom learning, and the media influence the participants' perceptions of tobacco use.

The study provided a snapshot of the children's reality that has not been previously examined. It also identified the need for health educators to be sensitive to the learner and possible emotional distress related health education topics. Whereas findings from this study cannot be generalized to a larger population due to the limited sample size, some interesting findings were obtained that may sensitize health professionals and educators in promoting the efficacy of health education related to smoking prevention that could be transferred to other health promotions topics.

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Appendix A

Request for permission from the School Division to access students within the School Division

Appendix A

Request for permission for students with in the School Division to access specified schools to participate in the study

Dear (Name of the Superintendent of the School Division)

I am writing to request the participation of the Grade 4 students from an elementary school in Winnipeg School Division 1 in an exploratory research study entitled, "An Exploratory Study of Grade 4 Students' Perceptions of Tobacco Use." I am a graduate student in the Faculty of Nursing, University of Manitoba. In my professional capacity, I am a nurse educator responsible for the delivery of information related to pediatric health issues and chronic illness.

The purpose of the study is to explore Grade 4 students' perceptions of tobacco use. The health curriculum provides primary prevention surrounding the issue of tobacco use in the primary grades. Programs like the Manitoba Lung Association's "Lungs Are For Life School Based Primary Prevention Program" generally begin in Grade 4. Research of effective primary prevention programming describes the knowledge of student perception as an essential element of effective school based health promotive education. This study will focus on eliciting those perceptions.

At this point I am requesting your assistance and cooperation in seeking the participation of Grade 4 students in the after school program at three elementary schools within Winnipeg School Division One, one of which will be the primary site for recruitment of participants. Permission for participation will be sought from each of the school principals, and the student's parent(s)/legal guardian. It is requested that a designate from the principal's office address the sealed envelopes with the parents'/guardians' names and have the Grade 4 students in the after school program take the envelope home to his/her parent/guardian. The estimated time to address and send the envelopes home to the parents is 1/2 -2 hours. The envelope will contain a written explanation of the study, parental consent form and self-addressed stamped envelope. The explanation of the study will include its purpose, methods of data collection, anticipated time requirement, and issues related to confidentiality (see attached Appendix C). The parents will sign a consent form allowing their child to participate in the study (see attached Appendix D).

Once parental consent has been received I will begin the data collection. Each child participating in the study will be requested to draw of picture of what they think of when I say "tobacco use." Once the child has completed his or her drawing s/he will be asked to verbally describe what the drawing means during a semi-structured interview which will last approximately 20 minutes. The interviews will be tape recorded and later transcribed onto paper to allow more accurate recording of individual students' comments. Participation in the study is completely voluntary and the children may withdraw at any point during the study.

The Ethical Review Committee of the Faculty of Nursing, University of Manitoba has given this study ethical approval. All the information students provide will be confidential. A numbered coding will be used to identify the information shared and student names will not appear on any written notes about the study. Any documentation of the data and research

findings from this study will be written in a manner such that individual statements cannot be linked to individual study participants. Names of the students will not be used during the interview and a coding system will be used to link participants to their drawings and the transcription of the interview. The tapes and transcripts from the study will only be reviewed by my thesis chair, Dr. Judith Scanlan and my thesis committee members, Dr. Caroline Park and Dr. Dexter Harvey of the University of Manitoba.

You will be provided with an executive summary of the study upon its completion, if you so request.

Thank you for your consideration of and support for my request. I look forward to hearing from you. I will contact you within a week to answer any questions you may have about the study but please not hesitate to contact me at (W) or (H).

Sincerely,

Tracey Fallak
Graduate Student
Faculty of Nursing
University of Manitoba

Dr. Judith Scanlan
Thesis Advisor
Faculty of Nursing
University of Manitoba
Winnipeg, Manitoba, R3T 2N2
Telephone: (204) 474-8175

Please send a copy of the summary of the research study to;

_____ (Name)

_____ (Address)

_____

Appendix B

Request for permission from the principal or vice principal and teacher to access Grade 4 students from specified schools.

Appendix B

Request for permission from the principal or vice principal and teacher for Grade 4 students from *specified school* to participate in the study.

Dear (name of the contact person/principal or vice principal)

I am writing to request the participation of the Grade 4 students from *name of the shcool* to participate in an exploratory research study entitled, "An Exploratory Study of Grade 4 Students' Perceptions of Tobacco Use." I am a graduate student in the Faculty of Nursing, University of Manitoba. In my professional capacity, I am a nurse educator responsible for the delivery of information related to pediatric health issues and chronic illness.

The purpose of the study is to explore Grade 4 students' perceptions of tobacco use. The health curriculum provides primary prevention surrounding the issue of tobacco use in the primary grades. Programs like the Manitoba Lung Association's "Lungs Are For Life School Based Primary Prevention Program" generally begin at Grade 4. Research of effective primary prevention programming describes the knowledge of student perception as an essential element of effective school based health promotive education. This study will focus on eliciting these perceptions.

I am requesting access to Grade 4 students in the after school program to avoid interruption to the classrooms of students who are participating in the study. One of the inclusion criteria is a child with normal cognitive development thus I am requesting that you as the principal identify if any Grade 4 student in the after school program does not met this criteria and not send a sealed envelop home to his/her parents. It is requested that a designate from your office address and send the sealed envelope to parent's/legal guardian's home with the Grade 4 students in the after school program. The envelope will contain the written letter of explanation of the study, and the parental consent form. It is estimated that it would take between 1/2 - 1 hours to address and distribute the envelopes to the Grade 4 students in the after school program. The explanation includes an outline of the purpose of the study, the methods of data collection, the anticipated time required, and issues related to confidentiality and anonymity of the participants. The written explanation and parental consent form will be mailed to the parents/legal guardian will be distributed to each of the Grade 4 students with direction as to whom the letter should be returned.

There are two parts to the study. Each child will be requested to draw of picture of what s/he thinks of when I say "tobacco use." The child will use his/her own pencils and crayons to complete his/her drawing. Once the child has completed his/her drawing s/he will be asked to verbally describe the meaning of the drawing and its parts during semi-structured interview that will last approximately 20 minutes. The interview will take place in the school. The interviews will be tape recorded and later transcribed onto paper to allow more accurate recording of individual student comments. Participation in the study is completely voluntary and the children may withdraw at any point during the study.

The Ethical Review Committee of the Faculty of Nursing, University of Manitoba has given this study ethical approval. All the information students provide will be confidential. A numbered coding will be used to identify the information shared and student names will not appear on any written notes about the study. Any documentation of the data and research findings from this study will be written in a manner such that individual statements could not be linked to individual study participants. Names of the students will not be used during the interview and a coding system will be used to link participants to their drawings and the transcription of the interview. The tapes and transcripts from the study will only be reviewed by my thesis chair, Dr. Judith Scanlan and my thesis committee members, Dr. Caroline Park and Dr. Dexter Harvey of the University of Manitoba.

Your willingness to have the Grade 4 students from your school participate in the study is completely voluntary. A summary of the study, if requested, will be made available at the completion of the study.

Thank you for your consideration of and support for my request. I look forward to hearing from you. If you have any questions please contact me at (W) or (H).

Sincerely,

Tracey Fallak
Graduate Student
Faculty of Nursing
University of Manitoba

Dr. Judith Scanlan
Thesis Advisor
Faculty of Nursing
University of Manitoba
Winnipeg, Manitoba R3T 2N2
Telephone: 474-8175

Please send copy of the summary of the research study to;

_____ (Name)
_____ (Address)
_____

Appendix C

Written explanation/letter of invitation to the parents/legal guardians of Grade 4 students at the participating school(s)

Appendix C

Written explanation/letter of invitation to the parents/legal guardians of Grade 4 students at the participating school(s)

Dear Parent or Legal Guardian:

My name is Tracey Fallak, I am a graduate student in the Faculty of Nursing, at the University of Manitoba. I am interested in children's perceptions of tobacco use. I am writing to request permission for your child to participate in my study entitled, An Exploratory Study of Grade 4 Students' Perceptions of Tobacco Use. I am a graduate student and in my professional capacity, a nurse educator responsible for providing education related to issues affecting the health of children. The study has received ethical approval from the University of Manitoba, School Division Number 1 and *name of the school.*

The purpose of the study is to explore children's perceptions of tobacco use. Knowledge of students' perceptions is essential for effective education. There are no right or wrong answers to the questions that I will ask during the interview. Your child will be asked to draw a picture of what s/he thinks of when I say "tobacco use." After s/he has completed his/her drawing s/he will be asked to describe and explain the meaning of his/her picture. Participation in the study will occur at the school during school day. Students will be interviewed individually to avoid the influence of other children on his/her description of his/her drawing. The interview will last approximately 20 minutes. The interview will be tape-recorded, and transcribed. Your child's name will not be recorded. All information is confidential and anonymous. Knowledge of students' perceptions is essential for effective education.

Your child's cooperation is completely voluntary and you may withdraw your child's participation at any point during the study. In addition, if your child should wish to withdraw at any point in the drawing of the picture or interview, s/he can tell me and I will stop immediately.

You will be provided with a summary of the study upon its completion, if you so request.

If you have any questions please contact me at (H) or (W). You may also contact my thesis advisor, Dr. Judith Scanlan of the Nursing Faculty, University of Manitoba at 474-8175.

Enclosed is the consent form that gives permission for your child to participate in the study. Please return the consent form to the school by *specified date*. Thank you for your consideration.

Sincerely,

Tracey Fallak
Graduate Student, University of Manitoba

Appendix D

Parental/legal guardian consent for the student to participate in the study

Appendix D

Parental/legal guardian consent for the student to participate in the study

I, _____ consent to have my child, _____ participate in the study titled, An Exploratory Study of Grade 4 Students' Perceptions of Tobacco Use. My child's participation will involve drawing a picture of what he/she thinks of when the researcher says "tobacco use" and describing the picture and its meaning. There are no right or wrong answers to questions asked during the interview. I understand that the interview will be recorded on audio tape and will take approximately 20 minutes. The purpose of the study is to gain an understanding of children's perceptions of tobacco use. Knowledge of children's perceptions is essential if health education is to be effective.

I may withdraw my child at any time during the study.

All information will be kept confidential.

I will be provided with a summary of the study results upon its completion, if requested.

My signature below indicates my consent to allow my child to participate in this study.

Child's Name: _____

Parent/legal guardian's Signature _____

Date _____

Please send me a copy of the summary of the research study.

Send to; _____ (Name)

_____ (Address)

_____

Appendix E

Explanation of the Study for the Children

Appendix E

Explanation of the Study for the Children

Hi, my name is Tracey Fallak and I am a nurse. I would like to learn what Grade 4 students think of when someone says tobacco use. What you think about tobacco use is important. I have spoken with and gained permission from your principal, and parents for you to participate in this activity. I would like you to draw a picture of what you think of when I say tobacco use. We will discuss your drawing and what it means to you when you are finished. If you do not want to answer any question or continue talking, you can tell me that, we will stop, and that will be okay. If you have any questions you can ask me at any time. *The picture that you create will not have your name on it and will not be shared with your classmates or your teacher. A summary of what was drawn and what was said in all of the interviews will be shared with the principals, teachers and the parents who requested a summary. No one will know who said what in the interviews or who drew what picture.* (Was added after the request for information about who would see the pictures by of one of the participants in the study).

Appendix F

Sample Questions for the Semi-Structured Interview

Appendix F

The researcher will use semi-structured questions that will guide the interview with the Grade 4 Students participating in the study. The drawing is a form of personal externalization of the students' unique perceptions and/or experiences with tobacco use. Probes will be used to facilitate the student's description of his/her picture. The child will be complemented on his/her drawing to encourage him/her to describe the meaning of his/her drawing. The following are examples of the questions and probes that will be used during the interview.

1. Tell me about you picture.
2. What is going on in this picture?
3. I am uncertain of what this (describe the object) is in your drawing, can you tell me more about it.
4. I see (describe the element), it looks like it is, for example summer, winter, outside, in a field, in a house" and wait for a response.
5. I wonder where this is?
6. How do you think this person feels?
7. What do you think the person is thinking?

Appendix G

Personal Beliefs and Assumptions Regarding Tobacco Use

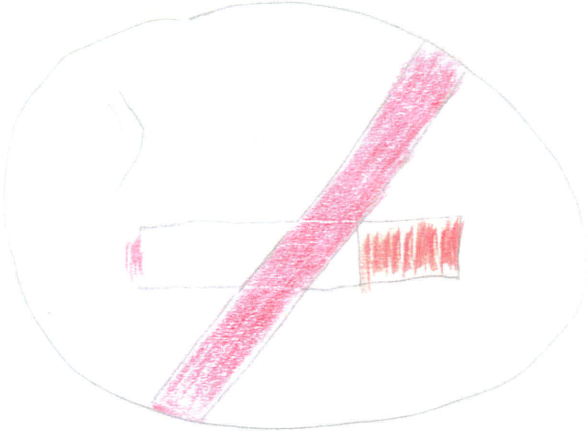
Appendix G

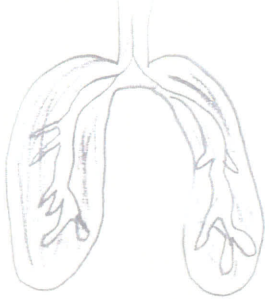
Personal Beliefs and Assumptions Regarding Tobacco Use

1. Smoking is only one form of tobacco use.
2. Smoking is a disgusting habit/addiction.
3. Smoking is the cause of multiple health problems.
4. Environmental tobacco smoke results in health problems or not only the smoker but also those people the smoker is in contact with.
5. Prevention children from smoking is more effective than attempting to have them quit once they are addicted.
6. Addiction to smoking can result after smoking a minimum of three experiences in using nicotine containing tobacco products.
7. Children's thoughts and perceptions provide adults with insight into the children's beliefs and to possible reasons for a child's behavior.
8. Children's views are important and essential to the development of effective primary prevention school based programs.
9. Education shapes the minds of children.
10. Education must be meaningful to the learner for it to be effective.
11. Smokers are not bad people.
12. There is cultural significance to the use of tobacco that must be respected.
13. The burning of tobacco stinks.
14. Smoking advertisement gives children false information.
15. Smoking advertisement impacts children's beliefs and perceptions about the use of tobacco.

Appendix H

Participants' Drawings





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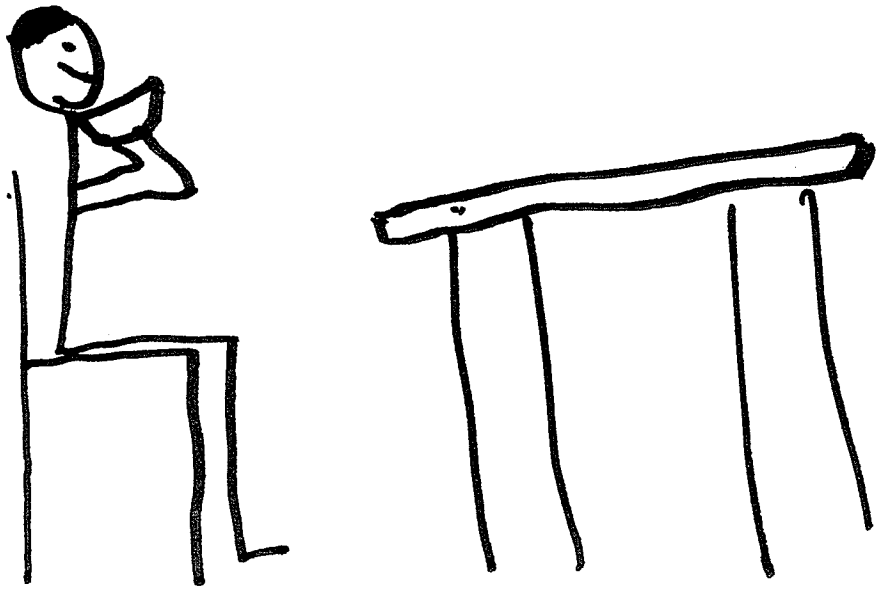

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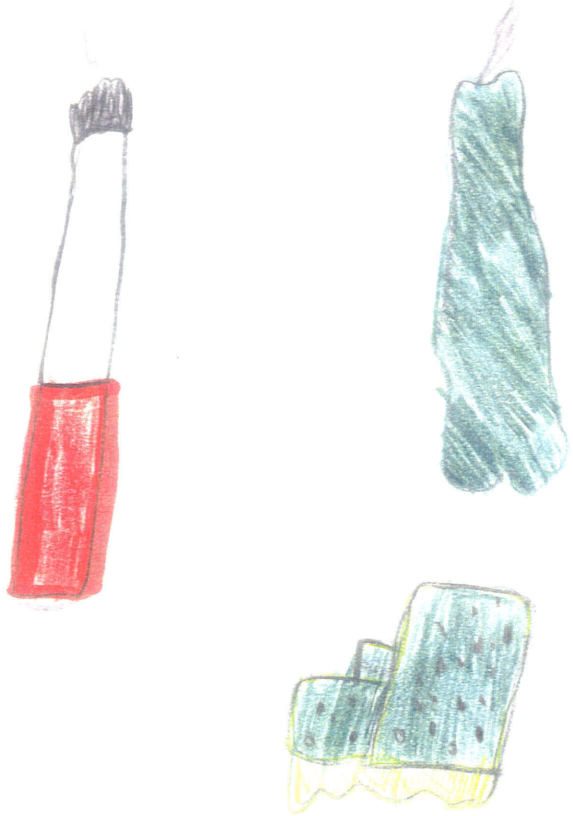

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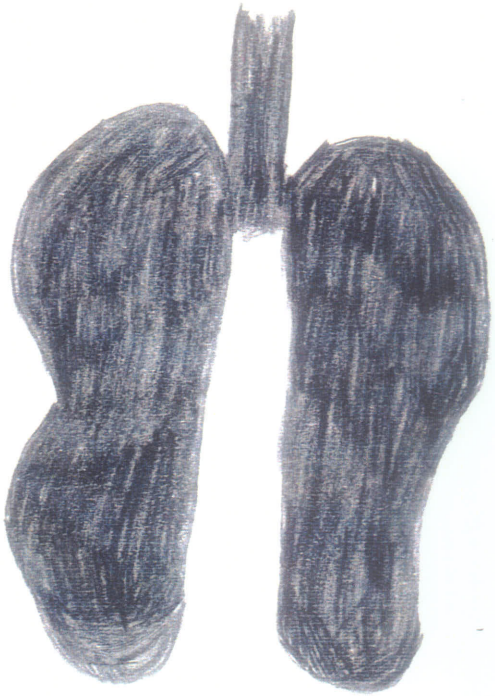
Participant 5



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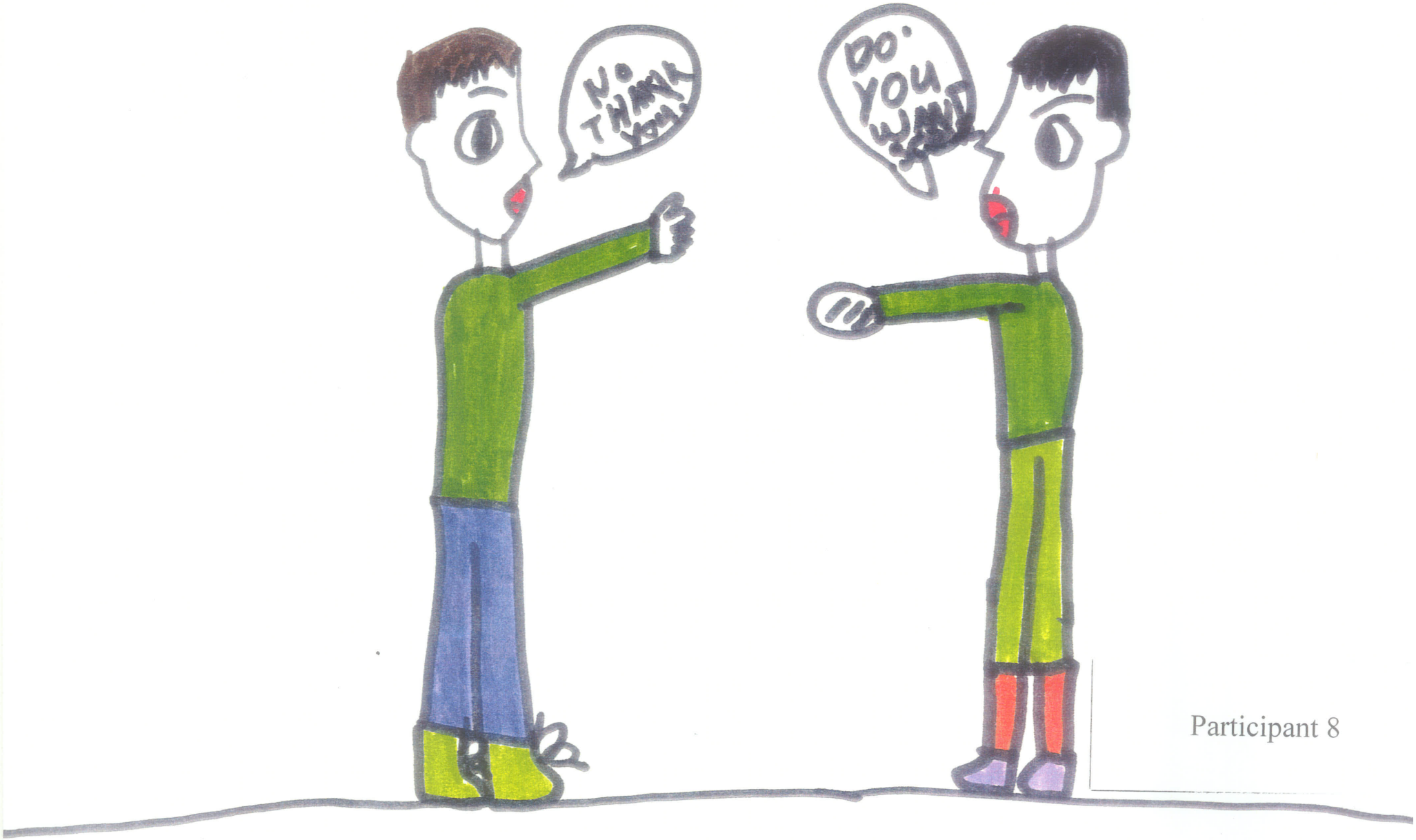

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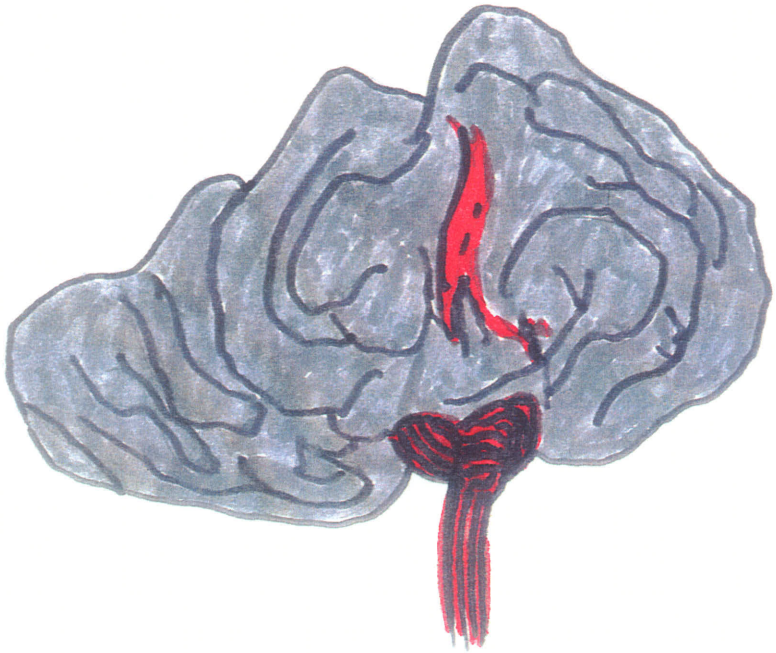
Participant 10

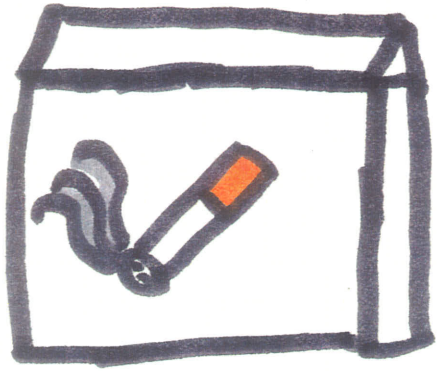


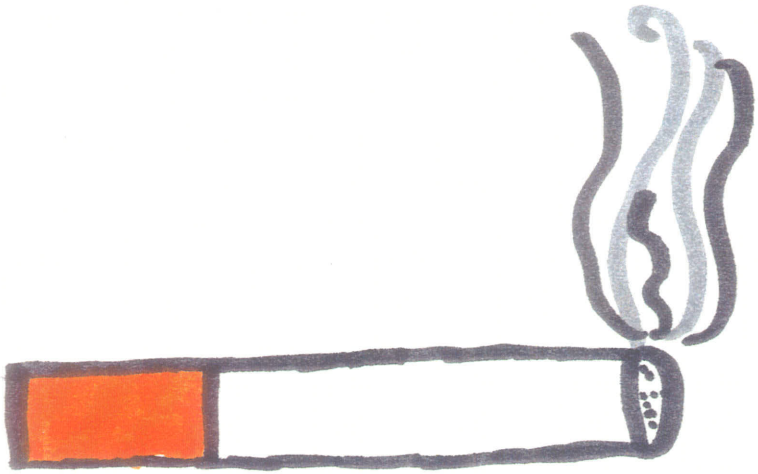
Participant 9

Participant 11

Participant 12

Participant 13





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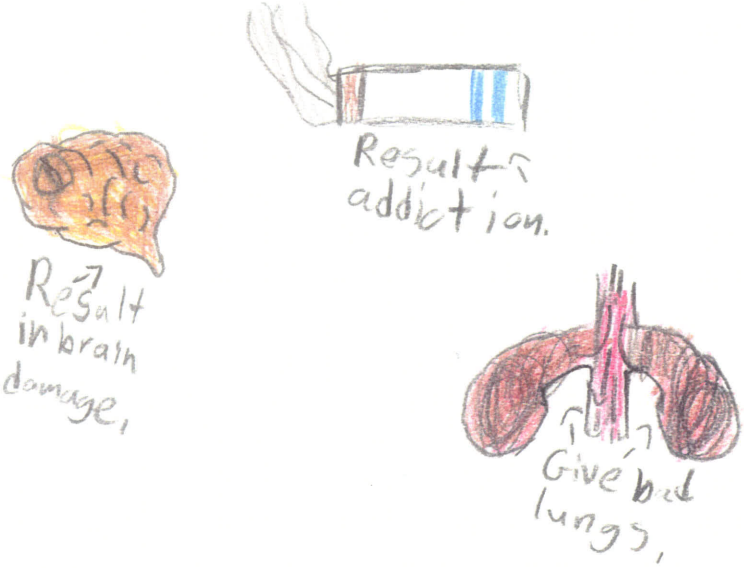

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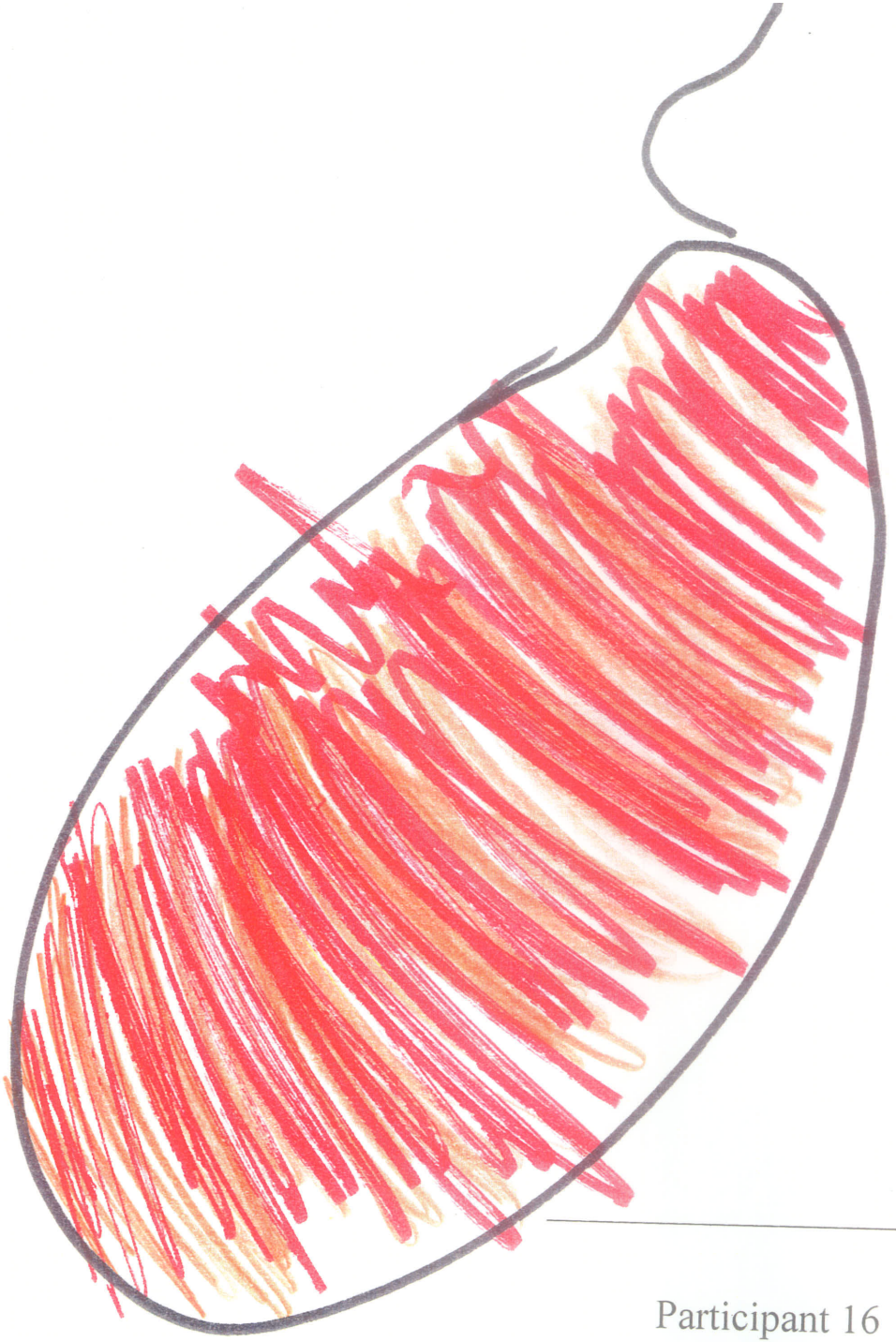

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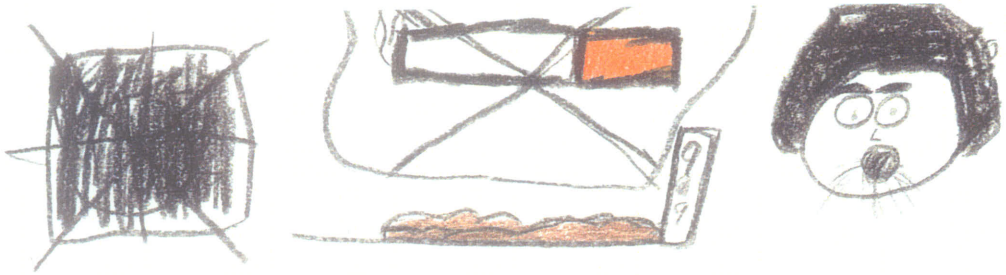

Participant 17