A comparison of the relationship between peer pressure and social acceptability among hookah-pipe users and non-users.

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Full Thesis submitted in fulfilment of the requirements for the degree MA (CFS) in the Department of Social Work, Faculty of Community and Health Sciences, University of the Western Cape

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Abstract

Hookah-pipe smoking escalated from being a cultural phenomenon to being a social phenomenon. Studies suggest that the hookah-pipe is a high-risk phenomenon which has become a highly acceptable social practice influenced by social factors such as smoking initiations among peers. What is unknown is whether peer pressure and social acceptance have an influence on the use of the hookah-pipe. The aim of this study is therefore to compare the relationship between peer pressure and social acceptance among adolescent hookah-pipe users and non-users. The objectives of the study are to determine the prevalence of peer pressure, social acceptability and smoking tobacco using the hookah-pipe among adolescents; establish the relationship between peer pressure and social acceptability of adolescent hookah-pipe users and non-users and to compare the relationship between peer pressure and social acceptability among adolescent hookah-pipe users and non-users. A cross-sectional comparative correlation study was conducted with a sample of Grade 9 adolescents attending secondary schools in the Metro East Education District in Cape Town. Structured questionnaires constructed from the National ASH 10 Year Snapshot Survey, the 10-year in-depth survey, the health and lifestyle survey and peer pressure, as well as an NICHD Study of Early Child Care and Youth Development questionnaire were completed by the participants. The Statistical Package for the Social Science (SPSS) software was used to analyse the data. The results show that no relationship was found between peer pressure and social acceptance, but a relationship was found between parental rules and monitoring around tobacco use for hookah-pipe users. A significant difference was also found in the attitudes towards hookah use between users and non-users. The ethics for this study included voluntary participation, informed consent and anonymity.

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Key Words

Hookah-pipe

Waterpipe

Tobacco

Cigarette

Social acceptability

Social phenomenon

Adolescent

Peer pressure

Adult

Social Influence Theory

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DECLARATION

I, Heidré Visman, declare that **"A comparison of the relationship between peer pressure and social acceptability among hookah-pipe users and non-users"** is my own work, that it has not been previously submitted for any degree or examination, and that all sources have been examined.

Heidré Visman

Date: November 2018

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Dedication

This thesis is dedicated to my son, Diego, and daughter, Kirah. Thank you for being my driving force through it all. It has been a long and challenging road, but you constantly reminded me why I am doing it. I love you with all my heart.

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- All thanks and praises to God, my Creator, for granting me this opportunity to achieve one of my goals in life. Thank you for giving me the health, courage, strength and ability to come so far and for carrying me towards my goals. I owe all that I am and what I wish to be, to you, my Lord. Thank you for your unwavering love. By grace, You have carried me, and I know You will never desert me in my future endeavours.

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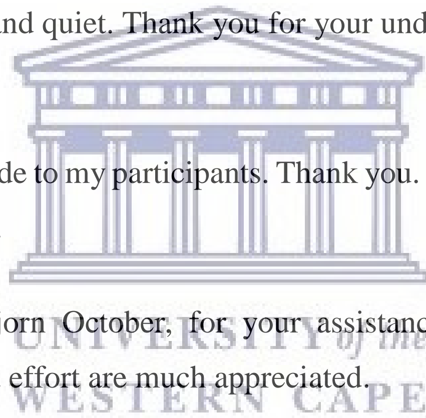

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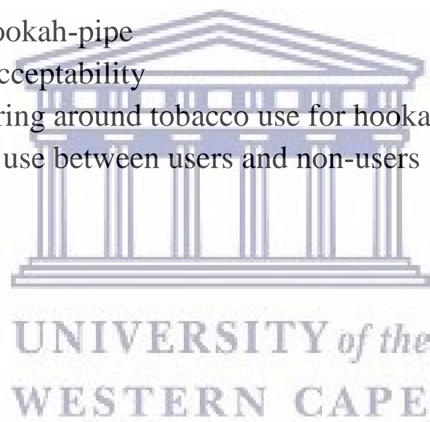

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CHAPTER ONE

INTRODUCTION

1.1 Background and Rationale

Tobacco consumption has fallen substantially over the past 30 years in many industrialized countries. In contrast, the World Health Organization (WHO, 2009), states that, over the same time period, tobacco consumption has been increasing in the developing countries. In 2006, more than 1 billion smokers in the world consumed about 5.7 trillion cigarettes (WHO, 2009; Shefey, Eriksen, Ross & Mackay, 2009). There is a wide variation in smoking prevalence among both males and females from one region to another. The World Health Organization Tobacco Free Initiative (WHO TFI, 2009), reported that, globally, the prevalence of smoking is higher for men (40% in 2006) than for women (nearly 9% in 2006) and males account for 80% of all smokers, which amounts to nearly 1 billion.

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Internationally, in the Americas and Europe, the prevalence of female smoking is high, around 17% and 22% respectively, reports the WHO (2009). In other regions of the world, the disparity between male and female smoking prevalence is greater. The WHO (2009) continues to report by making an example that, male smoking prevalence is near 37% in South-East Asia and 57% in the Western Pacific, while prevalence among women is around 4% to 5%. According to the Netherlands National Drug Monitor Annual Report (2005), these patterns reflect differing social norms, cultural traditions, and demographic factors. Socio-economic influences must also be considered (WHO, 2009).

In addition to differences in prevalence by gender, there is significant variation by income status. According to the smoking prevalence and number of smokers among adults by WHO (2006) the majority of the world's smokers (81%), are in low-and middle-income countries.

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Smoking prevalence among males in middle-income countries (45%) is higher compared to males in high-income countries (32%), while the reverse is true for females with 7% in middle-income countries and 18% in high-income countries (Anderson, Becher & Winkler, 2016).

There are an estimated 1.3 billion smokers worldwide and over 5 million deaths per year attributable to tobacco smoking (WHO, 2008). According to van Walbeek (2002), even though smoking rates are declining, there are an estimated 7 million smokers in South Africa (SA). Buist, McBurnic and Vollmer et.al. (2007) and WHO (2002), both reported that SA has a particularly high prevalence of smoking nicotine (20%). The mortality among current smokers in SA is nearly double that of non-or ex-smokers (Tobacco Atlas Online, 2009). Baker, Fiore and Jaen(2008) reports that up to a third of all male deaths in SA adults over the age of 35 years have recently been attributed to tobacco use.

Tobacco smoking in adolescents frequently leads to long-term nicotine addiction and the consequent adverse health effects. According to James, Reddy, Ruiter, Sewpaul, Shilubane and van den Borne (2013), in a South African study in 2008, 21% of learners (grade 8-10), were found to be current smokers, with 6.8% having initiated smoking before the age of 10 years. Abdool- Gaffar, Allwood, Dheda, Lalloo, Murphy, Richards, Stickells, Symons, Vanker and Van Zyl-Smit(2013), states that the smoking of hookah-pipe, also known as hubbly-bubbly, should be addressed among adolescents who frequently believe it to be tobacco-free and therefore, safe. The authors continue to state that preventing adolescents from starting to smoke is vital to reduce the number of adults who smoke (2013).

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According to Shilubane et.al. (2013), nearly half of adolescent smokers in SA attempt to quit each year, but factors such as stress, depression, peer pressure and weight gain impact on their success. SA data shows that adolescents who have been exposed to smokers are more likely to smoke than those who have not (74.5% v. 44% respectively) (van Zyl-Smit et.al. 2013).

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Although the hookah has been around for hundreds of years, it is not a safer alternative to smoking cigarettes (Page &Page, 2014). Smoking the hookah-pipe is a health hazard to smokers and others exposed to the discharged smoke (Alters & Schiff, 2011). The hookah contains four times the amount of nicotine, which is an addictive substance (Asotra, 2005). Although many hookah-smokers believe the use of a hookah-pipe poses less of a risk than smoking cigarettes, the hookah-pipe still contains many of the same harmful toxins as cigarettes and other forms of tobacco (Amitai & Knishkawy, 2005). These toxins include tar, carcinogens, hydrocarbons and heavy metals (Hales, 2016). Other toxic compounds such as nicotine, carbon monoxide, formaldehyde, polyaromatic, arsenic and lead (Banoobhai, Gqweta, Gwala, Masiea, Misra, van der Merwe & Zweigenthal, 2013:848) are also released when smoking the hookah-pipe. While there are many health risks to the hookah-pipe, there is an increase in using it (Balogh, Nass & Patlak, 2013). Adolescents, especially, are increasingly using it (Bonnie, Kwan& Stratton, 2015).

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Generally, young people engage in risky behaviour, including tobacco smoking and substance use (Degenhardt, Hall, Lynskey, Morley, Patton, Stockings&Weier, 2016). This risky behaviour is often linked to peer pressure with a high probability to start smoking (AlvesDiniz, Camacho, Gasper de Matos, Simões & Tomé, 2012). Social factors such as friends and parents who smoke also influence smoking initiation and for many people, the use of tobacco and substances reduce stress, anxiety and depression (Brannon & Feist, 2009). Smoking the hookah pipe is seen as a highly acceptable social practice (Zhang, 2008), because the most common setting for smoking the hookah-pipe is at social occasions (Combrink, Irwin, Laudin, Mathee, Naidoo & Plagerson, 2010). These occasions include smoking on a university campus, at parties, at a friend’s house, in the family home and at restaurants that allow the smoking of hookah pipes (Van der Merwe, et.al. 2013).

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Social acceptability and social interaction were identified as one of the primary factors people get from tobacco use (Glantz & Ling, 2005). Evidence suggests that affective experiences such as feeling stressed and social situations, which includes being in the company of others where smokers are present, can elicit the urge to smoke (Tsai, Tsai, Tsai &Wen, 2009). Glantz and Ling (2005) further state that tobacco is used by people for many reasons. These include making themselves feel comfortable around others, using it in situations where smokers are trying to make friends as well as an aid in feeling more mature and attractive to others. Smoking the hookah pipe became a more recent and very popular social phenomenon, pervading many countries and is becoming a social practice globally, especially among young people (Lapointe, 2008; van der Merwe et.al. 2013). It may be that the hookah, as with tobacco, is also perceived as being socially acceptable, but this has not been assessed as yet.

The current research on the hookah-pipe mainly focuses on prevalence studies (Kruger, van Walbeek & Vellios, 2016) health risk behaviour (Brady, Blosser, Burns, Dunn, Garzon &Starr,2016), age of onset (Daniels & Roman, 2013) and, the contributions of the family and addiction to the hookah-pipe (Roman, Schenk, Jacobs & September, 2016). Research shows there is a link between peer pressure, social acceptance and smoking cigarettes (Farhat & Simons-Morton, 2010) but this is unknown for the hookah-pipe. Thus, this study sought to compare the relationship between peer pressure and social acceptability between hookah-pipe users and non-users.

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1.2. Theoretical Framework

The proposed theoretical framework for this study is the Social Influence Theory (SIT), as proposed by Kelman (1958). SIT refers to the change in behaviour that one person causes in another, intentionally or unintentionally, as a result of the way the changed person perceives themselves in a relationship to the influencer, other people and society in general. This theory has seven types of social influence: compliance; conformity; obedience; persuasion; minority

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influence; self-fulfilling prophecy and reactance. These are the seven areas that influence an individual's behaviour and habitats through other individuals in society. In the current study, the seven areas could be understood as the basis for adolescents' beliefs and whether they are influenced by peer pressure and social acceptability to smoke the hookah-pipe.

1.3. Problem Statement

Compared to cigarette smoking, the number of puffs from using hookah is ten times higher than cigarettes, containing 36 times the amount of nicotine and higher concentrations of heavy metal (Eissenberg & Shihadeh, 2009). The hookah-pipe contains, among others, toxic compounds such as nicotine and carbon monoxide, which expose users to risk factors such as cancer and periodontal diseases (van der Merwe et.al., 2013). Smoking the hookah-pipe is therefore a huge health risk, but it is a social phenomenon (Daniels & Roman, 2013), which has become a keen interest of the youth.

During adolescence, the youth engage in risky behaviour which includes tobacco smoking (Hall et.al. 2016) and often this engagement may be due to peer pressure (Kalhar, 2011; van der Merwe, et.al. 2013) with the objective of being accepted (Coster, 2015). The family context could also be perceived as a platform for acceptable hookah-smoking, as it is within the family that the first process of socialization occurs (Roman et.al, 2016).

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Research on the hookah-pipe focuses on the prevalence, awareness and smoking of the hookah amongst women and men internationally (Ababaneh, Aljarrah& Al-Delaimy, 2009.). In South Africa the research focuses on the knowledge and attitudes of smoking the hookah-pipe (Daniels & Roman, 2013), preventions of tobacco use (van Zyl-Smit et.al, 2013), age of onset (Daniels & Roman, 2013) and families being a risk factor for future addiction (Roman et.al. 2016). Although studies provide evidence that the hookah-pipe is used mainly during social settings (Alias, Aghamohammadi, Aghazadeh, Chee, Wai Hoe &Wong, 2016) and

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permissible in some family contexts (Borhaninejad, Hashemi, Kaveh & Momenabadi, 2016), it does not provide sufficient evidence whether peer pressure and social acceptability is associated with hookah-pipe users. Therefore, this study sought to compare the relationship between peer pressure and social acceptability among hookah-pipe users and non-users.

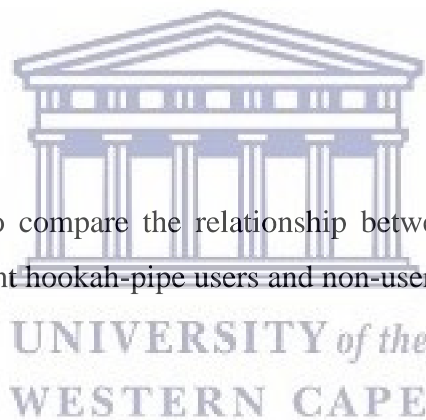
1.4. Research Questions

This study sought to answer the following questions:

1. Is there a relationship between peer pressure and social acceptability of hookah pipe users?
2. Is there a significant difference between hookah-pipe users and non-users regarding peer pressure and social acceptability?

1.5. Aims and Objectives

Aim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The aim of the study was to compare the relationship between peer pressure and social acceptability among adolescent hookah-pipe users and non-users.

Objectives

The objectives of the study were therefore to:

- Determine the prevalence of peer pressure, social acceptability and smoking tobacco using the hookah-pipe among adolescents;
- Establish the relationship between peer pressure and social acceptability of adolescent hookah-pipe users and non-users.
- Compare the relationship between peer pressure and social acceptability among adolescent hookah-pipe users and non-users.

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1.6. Methodology

The study used a quantitative methodology approach. Different researchers provide different definitions to quantitative research. For example, Colby (2010) defines quantitative research as the manipulation of numbers to make claims, provide evidence, describe phenomena, determine relationships or determine causation. In addition, Creswell (2013) provides a more concise definition, defining quantitative methodology as a type of research explaining a phenomenon by collecting numerical data that are analysed using mathematically based methods (in particular statistics). This study uses statistics and numbers to express gathered data or information and is used to answer questions such as who, what, how many and how often (Kolb, 2006). This approach allows the researcher to examine the relationship between the two variables, peer pressure and social acceptability. The data can be used to look for the cause and effect relationships, which can be used to make predictions (Deshpande &Hira, 2016). Thus, quantitative methodology is the choice in the current study.

1.7. Significance of the study

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The outcome of the study will be beneficial to psychologists, health care centres and social services, who provides services to individuals, families and communities through interventions, advocacy and support. Parents and family members may also benefit from this study, gaining insight into the reasons why adolescents smoke hookah-pipe, whether be peer pressure or social acceptance. It may especially be helpful in the health care services, where the dangers and health hazards are highlighted in research and interventions with patients on the smoking of hookah pipe. Social services may also equally benefit from this study, providing insight to why adolescents smoke hookah based on peer pressure and social acceptability. Parents and family members may benefit from this study as it will provide insight into why their children engage in substance use. The outcome of the study may highlight that social services intervention is needed within families, because adolescents and

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young adults smoke hookah because they succumb to peer pressure and need to feel accepted due to the lack of support within the home environment. Psychological intervention may also be highlighted in the outcome of the study, in order to assist in future planning to stop adolescents from smoking the hookah-pipe based on research and health hazards.

1.8. Definition and descriptions of key concepts

Adolescence: the period in human growth and development that occurs after childhood and before adulthood, from ages 10 to 19 (World Health Organization, 2016).

Adult: a person older than 19 years of age unless national law defines a person as being an adult at an earlier age (World Health Organization, 2016)

Cigarette: defined as any roll of tobacco wrapped in paper or in any substances not containing tobacco (Office of the Federal Register, 2014).

Hookah-pipe: defined as a single or multiple stemmed instruments used to smoke tobacco (Daniels, 2012).

Peer pressure: the tendency for individuals to think and act in specific ways, because they have been urged or pressured to do so by their peers or friends (Corwin, Colyar & Tierney, 2005)

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Social acceptability: the affirmative attitude of people towards something at a certain point in time, expressed through their opinions or their behaviour (Fischedick, 2008).

Social Influence Theory: a kind of user emotion tendency which is only influenced by friends in the social network (Cui, Li, Li, Ma, Sun, Wang &Zhao, 2018).

Social phenomenon: an inter-organism behaviour regularity (Wallace, 2009).

Tobacco: also known as snuff, is a plant that was originally native to the Americans and became popular to smoke in forms of cigarettes, cigars or pipes (NIDA InfoFacts, 2006).

Waterpipe: involves the passage of tobacco smoke through water before inhalation via a long pipe (Ghafouri, Heydari, Hirsch, Kuo, Morello & Singh, 2011).

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1.9. Thesis Structure- Chapter Summaries

Chapter one is an introduction to the study to compare the relationship between peer pressure and social acceptability among hookah-pipe users and non-users. It provides a background and rationale for the study. Chapter one also offers an overview of the theoretical framework and problem statement and, in addition, presents the research questions, aim, objectives, definitions of key concepts, hypothesis and the significance of the study.

Chapter two focuses on the theoretical framework and how it relates to the present study. Within the theoretical framework, the Social Influence Theory, the terms and concepts central to Social Influence Theory will be defined and elaborated on. It will provide an in-depth discussion about the elements related to the theory as well as the strengths and weaknesses. Furthermore, it focuses on the literature review and explores existing literature. The terms and concepts related to adolescents, peer pressure and social acceptability will be defined and elaborated on. In addition, more in-depth information will be provided on tobacco use, hookah-pipe and family influence on smoking as well as whether families are at risk for future smoking.

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Chapter three focuses on methodology. This study uses a quantitative approach. The chapter will include a detailed discussion of the methodological approach, research design, population and sampling, data collection instruments, data collection procedure, pilot study, data analysis and the issues of reliability and validity as well as the ethical considerations of the study.

Chapter four focuses on the interpretations of the research findings. It is presented in article format based on this study and was submitted to the Family Medicine and Community Health Journal.

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Chapter five provides a broader discussion of the research findings as presented in the previous chapter. The chapter further discusses the limitations, conclusions and recommendations of the study.

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CHAPTER TWO

CONCEPTUAL FRAMEWORK AND LITERATURE REVIEW

2.1. Introduction

This chapter explores the conceptual framework for this particular study. The chapter starts with an overview and understanding of the Social Influence Theory (SIT) and elaborates on the main areas which play an essential role in individual decision-making based on one individual's influence on another. The theory is also linked to the current study to argue how this framework fits best the study at hand. Subsequent to the theoretical framework, the literature review follows, which will explore recent research regarding the focus of the study. Pivotal terms and concepts related to adolescents, peer pressure and social acceptability are defined and elaborated on. Existing literature will also be explored.

Theoretical Framework

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2.2. Overview

This study will use a Social Influence Theory. Colman (2009) defines social influence as any process whereby a person's attitudes, opinions, believes or behaviour are altered or controlled by others. It can deal with the change of the individual's task performance level in the condition where other people are watching or when the individual is acting to reach a common goal with other people (Dolinski, 2015). Social influence takes many forms and can be seen in conformity, socialization, peer pressure, obedience, leadership, persuasion, sales and marketing (Gorham, 2016). The presence of other people (real or imagined) also activates inclinations to conform - the individual tends to behave like other people (Carta, 2009). The basic manifestations of social influence are the influence of the presence of other people on an individual's performance level, conformity and obedience toward authority (Blass, 2000).

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According to Carta (2009), psychological research indicates that the very presence of other people influences considerably the speed and the quality of the individual's performance of a certain task. Depending on circumstances, this influence may or may not be advantageous. According to Zischka (2016), the inclination for conformist behaviour is connected with the individual's aspiration to be right or acquire social acceptance. In both cases, Cialdini (2001), reasons that the individual treats the reactions of other people as indications on how to behave.

2.3. Conformity

Conformity can be described as a type of social influence involving a change in behaviour, belief or thinking to align with those of others or with normative standards (Singh Bagel, 2017). Experimentation with tobacco, other drugs and the well-known hookah-pipe, is common during the adolescent years and may seem to have a bigger impact on long-term smoking (Hoffman, Sussman, Unger & Valente, 2006). Berndt (1979) suggests that conformity, or complying with behaviour suggested by peers, peaks at ninth grade for neutral and anti-social behaviour. Crutchfield (1962) defines conformity as yielding to group pressure. Aronson (1976) states that the pressure can be real (involving the physical presence of others) or it can be imagined (involving the pressure of social norms or expectations). According to Singh Bagel (2017), conformity is the most common and pervasive form of social influence. Conformity and peer pressure are closely related concepts, as conformity may be a demonstrated acquiescence to peer pressure (Hoffman et.al. 2006).

An adolescent's level of conformity to peers is related to their desire to be popular. According to Degirmencioglu, Luo Pilgrim and Uberg (2003), there is an interactive effect for peer acceptance and positive friend relationships predicting smoking hookah-pipe, as adolescents with more friends and positive relationships with those friends are more likely to be influenced by friends to smoke. There is an interaction between popularity and smoking the hookah-pipe while on school prevalence in predicting smoking the hookah-pipe. According to Hoffman,

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et.al. (2003), it is unclear whether it is the status of popular adolescents' smoking of the hookah-pipe, influencing the smoking of other adolescents or whether popular adolescents are modelling the behaviour that they perceive as the norm in their school.

2.3.1. Informational- and normative social influence

Social psychology research distinguishes between two varieties: informational conformity and normative conformity (Aronson, Akert &Wilson, 2010). According to Bush and Hunt (2011), empirical research has demonstrated that social influence has an impact on individual psychological processes. This led to Deutsch and Gerard (1955) to describe two psychological needs that lead humans to conform to the expectations of others. These include our need to be right (informational social science) and our need to be liked (normative social science). Dolinski (2015) defines informational influence, or social proof, as an influence to accept information from another as evidence about reality. It comes into play when people are uncertain, either because stimuli are intrinsically ambiguous or because there is social disagreement (Dolinski, 2015).

Normative influence is an influence to conform to the positive expectations of others (Dolinski, 2015). This occurs when the individual imitates the actions of other people in order to become similar to the members of a group. Dolinksi (2015) continues by stating that such behaviour becomes a means of maintaining (or achieving) a link with the given group as well as the acceptance of other people. In terms of Kelman's typology (1958), normative influence leads to public compliance, whereas informational influence leads to private acceptance.

Both circumstantial factors and individual personality have an impact on the strength of informational and normative influences. The informational influence would occur mainly in equivocal reality and the subject would be convinced about the high level of credibility of other participants and at the same time would be persuaded about their own minimal competence in the task matter (Dolinski, 2015). Normative influence would occur in the

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situation where the subject would be highly interested in gaining the acceptance of the group, which also involves the need for social approval as the personality factor (Dolinski, 2015).

The two types of social influences correspond to three different processes of social influence identified by Kelman (1958). These processes are internalization, identification and compliance, each of which Kelman defined as having a distinct set of antecedents and a distinct set of consequent conditions (Kelman, 1958; 1961). These three processes of attitude change as identified by Hebert Kelman in 1958, was to help determine the effects of social influence such as separating public conformity (behaviour) from private acceptance (personal belief).

2.4. Kelman's varieties of social influence

2.4.1. Internalization

This term refers to the adoption of common self-guides for meeting idealized goals shared with others, because they are viewed as coinciding with one's own goals (Avison, Carroll, Damiani, de Pablos, Lytras, Tennyson & Vossen 2008). Scott (1971) described internalization as a metaphor in which something moves from outside the mind or personality to a place inside of it. Scott (1971) further states that the process of internalization starts with learning what the norms are and then the individual goes through a process of understanding why they are of value or why they make sense, until finally they accept the norm as their own viewpoint. According to Amir, Ariely and Mazar (2008), internalized norms are said to be part of an individual's personality and may be exhibited by one's moral actions.

Role models may affect what an individual internalises. Gavrilets and Richerson (2017), state that role models often speed up the process of socialization and encourage the speed of internalization. Mc Brewster, Miller and Vandome(2012) state that, if someone an individual

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respects is seen to endorse a particular set of norms, the individual is more likely to be prepared to accept and so, internalise those norms.

Within households, the probability of an adolescent smoking and how much they smoke is closely associated with the smoking behaviour of older adults in the household (Hunter &Millar, 1992). A family member with a substance abuse problem, which includes the hookah-pipe, increases the probability of an adolescent trying or becoming a compulsive user of tobacco, hookah-pipe or any other substances (Yarnold, 1992). According to Geckova, Groothoff, Post, van Dijk and van Ittersum- Gritter(2002), a family member smoking the hookah-pipe, may increase the availability of hookah-pipe equipment at home. Geckova et.al. (2002) further states that the parent-child relationship can be expressed in terms of social support. Paternal social support can protect adolescents against experimenting with smoking behaviour, selection of smoking peers and peer pressure to smoke. Parenting behaviours (spending time with adolescents, communicating and monitoring adolescents, having positive relations) are significant deterrents to adolescent disruptive behaviour, vulnerability to peer pressure and subsequent smoking, including the hookah-pipe (Cohen, LaBree & Richardson, 1994).

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Role models can be regarded as a potential group of people who are able to leave an impact on the intentions and behaviours of people (Bush & Martin, 2000). Role-model smoking for adolescents may be teachers, doctors, nurses, movie stars, sport stars and fashion models. These influential people, who smoke hookah-pipe on and off screen, may encourage youths to smoke (Dardin & Gilleskie, 2015).

2.4.2. Identification

Another concept that is important in the Social Influence theory is identification. Kelman (1958) suggested that identification occurs when an individual accepts influence because he wants to establish or maintain a satisfying self-defining relationship with another person or a

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group. According to Bagozzi and Bergami (2000), the content of the behaviour is irrelevant to the user who is motivated simply by the salience of the relationship. Identification is also a psychological process whereby the subject assimilates an aspect, property or attribute of the other and is transformed, wholly or partially, by the model the other provides (Reinelt & Roach, 2007). The roots of the concept can be found in the three most prominent concepts of identification as described by Sigmund Freud: primary identification, narcissistic identification and partial identification.

Primary identification: According to Meissner (1970), primary identification is the original and primitive form of emotional attachment to something or someone prior to any relations with other persons or objects. In other words, when a baby is born, he is not capable of making a distinction between himself and important others. During this process of identification, children adopt unconsciously the characteristics of their parents and begin to associate themselves with and copy the behaviour of their parents (Huczynski, 2001). Because of this process of emotional attachment, a child will develop a (super) ego that has similarities to the moral values and guidelines by which the parents live their lives (Harris, 2011).

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Studies demonstrate that there is a close-response relationship between adolescent hookah-pipe users and the smoking status of one or two parents. Ganapathy, Ghazali, Kee, Khoo, Lim, Lim, Ling, Tee and Teh(2017) state that the likelihood of smoking the hookah-pipe and any other substances increases when both parents smoke. According to Bandura’s concept of “delayed modelling” (1989), during childhood, an individual learns or remembers how to perform behaviour from seeing it modelled by their parents. Therefore, parents who smoke hookah-pipe in front of their children would act as a role model for their children and also indirectly provide an impression that smoking the hookah-pipe is a normative behaviour among adolescents (Lim et.al. 2017). This may result in the immature adolescent adopting the smoking behaviour of their parents to satisfy their desire to be like an adult.

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Furthermore, parents smoking the hookah-pipe may be more liberal when dealing with smoking issues (Koddl & Mermelstein, 2004) and therefore less likely to convey the hazards of smoking the hookah-pipe to their children (Chassin, Macy, Presson, Seo, Sherman & Wirth, 2008), which would ultimately lead to the belief that smoking the hookah-pipe is acceptable and permissible by their smoking parents.

Narcissistic identification: this is the form of identification following abandonment or loss of an object which Meissner (1970) identifies starts at a very young age. An example would be, wearing the clothes or jewellery of a deceased loved one.

All children want their parents' approval and attention. Children adapt to their homes and often the most productive and reasonable adaptation to some home situations leads to narcissistic behaviour (Greenberg, 2016). Lack of attention, approval and rewards from parents may lead to adolescents seeking approval from external dynamics, such as a group of peers smoking the hookah-pipe or other forms of substances.

Partial identification: is based on the perception of a special quality of another person (Meissner, 1970). It is often represented in leader figure that is identified with, for example: the young boy identifies with the strong muscles of an older neighbour boy. People identify with others, because they feel they have something in common (Von Matérn, 2015). For example: a group of people who like to smoke the hookah-pipe. According to Von Matérn (2015), this mechanism plays an important role in the formation of groups. It contributes to the development of character and the ego is formed by identification with a group (Friedlander, 2013). Jain (2016) further states that partial identification promotes the social life of people who will be able to identify with one another through this common bond to one another, instead of considering someone as a rival.

Social scientists have long noted the tendency for people to place themselves and others into consensually recognized and labelled social types (Ashmore, Beebe &Del Boca, 2002).

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Adolescents tend to segregate themselves into different peer group types and giving themselves names. According to Ashmore, Brown, Pokhrel and Sussman (2007), peer group names that adolescents give themselves or each other suggest the groups' lifestyle characteristics such as shared beliefs and preference for specific activities, which involves the hookah-pipe. As discussed by Brown and Lohr (1987), adolescents may identify with groups to develop a sense of identity and a positive self-concept, and an increased sense of personal autonomy from parents.

Adolescents may "place" themselves into peer groups in at least two ways. Sussman et.al. (2007) states that firstly, they may simply identify themselves with a certain peer social type regardless of any direct interaction with other.

Secondly, these adolescents may actually participate in peer groups which reflect the larger collective. During this period adolescents are in the process of moving away from the closed environment of their parental homes where they are largely influenced by their immediate family to a social world where they are among peers and have to begin to make independent choices, according to Sussman, et.al. (2007). These choices include choosing friends who smoke the hookah-pipe in order to be accepted and or being pressurized by peers to smoke the hookah-pipe. In need of support and direction, they are likely to search for a place among a group of peers by conforming to the group's norms (Larkin, 1979). Peer groups thus either vicariously or directly facilitate the adolescents' transition into the larger social environmental world.

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2.4.3. Compliance

Defined as the effect that the words, actions or mere presence of other people have on our thoughts, feelings, attitudes or behaviour; social influence is the driving force behind compliance (Cialdini & Goldstein, 2004). Davis and Venkatesh(2000) state that compliance occurs when an individual perceives that a social actor wants them to perform a specific

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behaviour, and the social actor has the ability to reward the behaviour or punish non-behaviour. According to Akert, Aronson and Wilson (2010), compliance can also be seen as a change in behaviour, but not necessarily in attitude - one can comply due to mere obedience or by otherwise opting to withhold private thoughts due to social pressures.

Different levels of influence have been found to impact adolescent smoking behaviour. According to Farhat and Simons-Morton (2010), adolescent smoking, including the hookah-pipe, is influenced by social norms that are determined in terms of social context, social networks and group membership. The most direct and primary influence comes from family and peer groups and they provide a framework through which an individual gains an understanding of what is normal and acceptable behaviour in society (Dawkins, 1989). Most adolescents make decisions about smoking the hookah-pipe more to fit in, gain recognition with their friends and declare their independence, which results in withholding private thoughts about individual values and norms regarding the smoking of the hookah-pipe.

2.5. Minority influence

Minority takes place when a majority is influenced to accept the beliefs or behaviours of a minority according to Marshall (2015). Gardikiotis (2011) states that this occurs when a small group or an individual act as an agent of social change by questioning established societal perceptions and proposing alternative, original ideas which oppose the existing social norms. There are two types of social influence: majority influence, resulting in conformity and public compliance, and minority influence, resulting in conversion (Crisp & Turner, 2010). According to Sampson (1991), majority influence refers to the majority trying to produce conformity on the minority, while minority influence is converting the majority to adopt the thinking of the minority group.

Singh Bagel (2017), states that minority influence can be affected by the size of majority and minority groups, the level of consistency of the minority group and situational factors.

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Blackstone, Busceme, Lundgren, Ouelette and Wood (1994) further state that minority influence most often operates through informational influence because the majority may be indifferent to the liking of the minority. Unlike other forms of influence, minority influence, according to Charles (2016), is often thought of as a more innovative form of social change, because it usually involves a personal shift in private opinion.

In adolescents' social groups, the effects of existing opinion on the groups' beliefs will depend in part of what opinions are expressed, by whom and with what persuasive strength (Capella, David& Fishbein, 2006). The possibility of both silent majorities and silent minorities exists. Majority opinion often determines group opinion because those who deviate from the majority - in this case, adolescents against smoking the hookah-pipe - will be silenced in the presence of a dominant majority (Bach, Festinger & Schachter, 1950).

Communication with deviant minorities within the group is necessary for the group to achieve consensus. In most group decision-making tasks, minorities exert little influence on the majority unless their opposing views have the credibility of higher status according to David, et.al. (2006). For example, in adolescent groups, older teens who smoke hookah-pipe have higher social status than younger ones, and more likely much more experience in smoking the hookah-pipe and other substances or at least fewer negative attitudes than younger teens. This higher status puts older adolescents in an "opinion leader" position, imparting greater authority on their attitudes pertaining to hookah use.

2.6. Self-fulfilling prophecy

Content Technologies Information (CTI) Reviews (2016) defines a self-fulfilling prophecy as a prediction that directly or indirectly causes it to become true, by the very terms of the prophecy itself, due to positive feedback between belief and behaviour. In other words, Jussim (2012) explains that a positive or negative prophecy, strongly-held belief, or delusion-declared as truth when it is actually false - may sufficiently influence people so that their

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reactions ultimately fulfil the once-false prophecy. Darley and Gross (2000) continue by stating that self-fulfilling prophecy are effects in behavioural confirmation effect, in which behaviour, influenced by expectations, causes those expectations to come true.

Smoking the hookah-pipe by adolescents has become an acknowledged social concern. Adolescents smoking the hookah-pipe are regrettable, as it is associated with a range of negative consequences such as cancer, heart disease and exposure to toxic substances such as charcoal from the heat source (Alias et.al, 2016). Looking at parents' beliefs about their children's involvement in smoking the hookah-pipe can be variable and sometimes inaccurate, but they may be influential. Adolescents smoking the hookah-pipe are a critical issue as parents are among the adolescents' most significant social referents and are extraordinarily influential on their offspring's involvement in the hookah-pipe (Alias et.al. 2016). Reasoning from the self-fulfilling prophecy, literature suggests that parents, who mistakenly assume their children's involvement in smoking the hookah-pipe, may inadvertently promote the very problem they seek to prevent (Alias et.al. (2016).

2.6.1. Behavioural confirmation

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Behavioural confirmation is a type of self-fulfilling prophecy whereby people's social expectations lead them to behave in ways that cause others to confirm their expectations (Myers, 2015). Social psychologist, Mark Snyder, preferred the specific term behavioural confirmation because it emphasizes that it is the target's actual behaviour that confirms the perceiver's beliefs (Snyder, 1992).

Most studies report that smoking is more prevalent among adolescents from low socio-economic groups (Chen &Hanson, 2016) which include the hookah-pipe. Paavola, Puska and Vartiainen (2001) add that a recent study has shown that the socio-economic inequalities in smoking, including the hookah-pipe, among adolescents have been rising. There are no convincing explanations of why smoking the hookah-pipe emerges at an early age, but among

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the possible causes, parental modelling and attitudes appear in the first place (Chen & Hansen, 2016). According to Blokland, de Kemp, Engels, Scholte and Vitaro (2004), a major risk of adolescents' smoking initiation, is the imitation of their parents' smoking behaviour. This relationship remains even when controlling for peer influences.

2.7. Reactance

CTI Reviews (2016) define reactance as a motivational reaction to offers, persons, rules or regulations that threaten or eliminate specific behavioural freedoms. It occurs when a person feels that someone or something is taking away their choices or limiting the range of alternatives (Collett, 2014). According to Tams (2013), reactance can occur when someone is heavily pressured to accept a certain view or attitude. It can cause a person to adopt or strengthen a view or attitude that is contrary to what was intended and also increases resistance to persuasion. Knowles & Linn's (2004) findings suggest that people using reverse psychology are playing on at least an informal awareness of reactance, attempting to influence someone to choose the opposite of what they request.

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Parents are not the only factor influencing whether or not adolescents choose to smoke. The effect of peers on adolescent behaviour is of interest due to the large period of time spent in contact with their peers in and outside of school (Barnes, Dintcheff, Farrell, Hoffman & Welte, 2007). According to Chou, Hoffman, Mongeand Valente (2007), peer influence constitutes an adolescent being influenced or pressured to smoke with the intention of identifying with more peers. This includes the well-known hookah-pipe.

During the ups and downs of adolescence, these transitions can be especially challenging times. For example, adolescents can be very overwhelmed and intimidated by the new surroundings and new faces. This is the time they begin to experience more pressure to try things they know are not right. The Youth Smoking Prevention publications (2005), reported that adolescents say that peer pressure makes them feel they are being pulled in two directions.

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They may not want to do what they're feeling pressured to do, but they are also afraid of losing their friends if they say no. Adolescents worry about being on their peers' bad sides and really want to avoid feeling like outsiders (Mulvihill, 2014). Thus, this may lead to adolescents engaging in hookah-pipe smoking with their peers in order to be accepted.

2.7.1. Reverse Psychology

This is a technique involving the advocacy of a belief or behaviour that is opposite to the one desired, with the expectation that this approach will encourage the subject of the persuasion to do what actually is desired: the opposite of what is suggested (Lisiero, 2012). Brown (2011), further states that this technique relies on the psychological phenomenon of reactance, in which a person has a negative emotional reaction to being persuaded, and thus chooses the option which is being advocated against. The one being manipulated is usually unaware of what is really going on (Brownwell & Mellor, 2013). An example of reverse psychology pertaining to the study at hand could be that adolescents smoking the hookah-pipe challenge the non-users to smoke: "I bet you cannot take one smoke from the hookah-pipe".

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2.8. Obedience

The term obedience, in human behaviour, is defined by Coleman (2009), as a form of social influence in which a person yields to explicit instructions or orders from an authority figure. It is generally distinguished from compliance, which is behaviour influenced by peers and from conformity, which is behaviour intended to match that of the majority (CTI 2016). Wacks(2000) states that depending on the context, obedience can be seen as immoral, amoral or moral:

- Immorality is the violation of moral laws, norms or standards (Esposito & Jain, 2016). It is normally applied to people or actions.
- Amorality according to Johnstone (2008) and Superson (2009) is an absence of, indifference towards, or disregard for mortality.

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- Morality is the differentiation of intentions, decisions and actions between those that are distinguished as proper and those that are improper (Long, Sedley & Sedley, 1987).

2.9. Persuasion

Persuasion can be seen as an umbrella term of influence. According to Gass & Seiter (2009), persuasion can attempt to influence a person's beliefs, attitudes, intentions, motivations or behaviours. Persuasion can also be interpreted as using one's personal or positional resources to change people's behaviours or attitudes (Gass & Seiter, 2010). In the same way, the adolescents in this study may be persuaded by their peers to try out or become regular users of the hookah-pipe. An example could be: "Try out the hookah-pipe, you will find that it is not as bad as people portray it to be"- trying to change the attitude and beliefs of the receiver.

LITERATURE REVIEW

2.10. Understanding the term adolescence

The sample used for this specific study is adolescents. When defining adolescence, several criteria are relevant such as the simple age. Adams, Gullotta & Markstrom-Adams (1994) state that adolescence covers the age groups 11 to 20 and distinction is made between early adolescence (11-14), middle adolescence (15-17) and late adolescence (18-20). There is no global consensus regarding the definition of adolescence. Contrary to authors, scholars view adolescence as beginning with puberty and age 10 is when the first outward signs of puberty occur for most girls in industrialized countries, whereas boys usually begin 2 years later (Arnett, 2007). According to Ayers, Baum, McManus, Newman, Wallston, Weinman & West (2007), the World Health Organization defines adolescence as the period from 10 to 19 years of age. Ayers, et.al. (2007) state that during recent decades, it has become clear that a transitional stage between childhood and adulthood is evident in most societies of the world. The statement continues, stating that, this expanded period includes longer schooling, earlier

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puberty, later marriage, removal from full-time labour and greater separation from the world of adults (Larson & Wilson, 2004). During this period of life, through a complex interplay between biological, physiological, psychological, social, societal and cultural factors, lifestyles are shaped (Ayers, et.al., 2007).

2.11. Adolescent behaviour

According to Adams and Gullotta (2007), the majority of adolescents have life experiences that involve no major dysfunction and a number of compromising behaviours emerge (Ayers et.al. 2007). However, as Adams and Gullotta (2007) continue, in each generation, about 20% of adolescents have issues serious enough to be classified as dysfunctional. A window of vulnerability emerges for adolescents as they turn 12 years of age and grows larger as the adolescent grows older (Adams & Gullotta, 2007). During the adolescent period, children are normally physically active, and there is hardly any use of tobacco, alcohol or other addictive substances (Ayers et.al. 2007). Contrary to this statement, a report from the World Health Organization international study on Health Behaviour in School-Aged Children (HBSC) reports that the percentage of smokers increases during early adolescence (Currie, Morgan, Rasmussen, Roberts, Samdal, Settertobulte & Smith, 2004). Another concept within normal adolescent development is risk-taking, which is a natural part of growing up and inspires many aspects of shaping identity and learning new decision-making skills (Adams & Gullotta, 2007).

There are a multitude of reasons for risk-taking behaviour among adolescents. Srivastava and Uzair (2016) state that research over the last few years has indicated that indulgence of adolescents in risk-taking behaviour is due to poor parenting practice and one of the prevailing factors is peer attachment. Research done by Adams and Gullotta (2007) shows that many adolescents spend unsupervised time after school before parents return home, using this time to experiment with sex, delinquent acts or using drugs. However, some adolescents do not

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engage in such behaviour and rather use the time to engage in productive behaviour. Those who do engage in such behaviour often seek excitement or novelty. Some do it to go along with the crowd in response to peer pressure or emulating modelled behaviour in movies, television shows or songs, or simply out of the fear of being teased by their friends, which motivates them to act out of fear of ridicule (Adams & Gullotta, 2007).

2.12. Defining peer pressure

Newman and Newman (2008) states that adolescents' family backgrounds, interests and styles of dressing quickly link them to subgroups of peers who lend continuity and meaning to life within the context of their neighbourhoods or schools. Kusumakar, Messervey and Santor (2000), define peer pressure as the tendency for individuals to think and act in specific ways because they have been urged or pressured to do so. It also refers to demands for conformity to group norms and a demonstration of commitment and loyalty to group members (Newman & Newman, 2008). The term peer pressure is often affiliated with a negative connotation, suggesting that young people behave in ways that go against their beliefs or values because of the fear of being rejected. Peer pressure is a major factor in the development of risk-taking behaviour (Lewis & Lewis, 1984), acting as an influential model by introducing, providing or pressuring risky activities to other peers (Kinard & Webster, 2010). More time is spent with peers, who then become a primary source of social support. It is also important to consider that as much as peer influence can be negative, it also poses positive reinforcements (Gross & Hersen, 2008). Adolescents can turn to their peers with whom they feel comfortable to talk about their dissatisfactions, discouragements or life doubts and feelings of guilt about mistakes made (Harkness & Kadushin, 2014). These peers are very often their primary support base, who most likely have experienced similar problems and can express the empathic understanding. Another advantage of belonging to a peer group, is that they are not only psychologically available, but also physically (Harkness & Kadushin, 2014).

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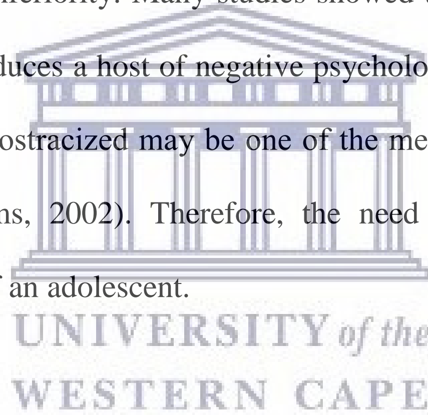
2.13. The need for belonging

The need to belong is the most fundamental of all human needs. This need is not only emotionally desirable, but also evolutionary adaptive (Williams, 2002). The need to belong "involves two criteria: the need for frequent, affectively pleasant interactions with a few other people, and second, these interactions must take place in context of a temporarily stable and enduring framework of effective concern for each other's welfare" (Baumeister & Leary, 1995:497).One of the earliest discussions was by Sigmund Freud, arguing that the need for belongingness derives from the need of sex filial bonds (Freud, 1930), whereas Alfred Adler (2007) regarded the need for belongingness as a subject seeking a sense of superiority to counter a personal sense of inferiority. Many studies showed that the absence of affiliation and intimacy with others produces a host of negative psychological consequences including stress and depression. Being ostracized may be one of the methods of attacking a person's sense of belonging (Williams, 2002). Therefore, the need for belonging also plays a fundamental role in the life of an adolescent.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2.14. Bases to belong

There are a few bases that humanity reasoned the need to belong. They are sense of identity, sense of security and sense of orderliness

2.14.1. A sense of identity

According to Burke & Stets (2009), an identity is the set of meanings that define who one is when one is an occupant of a particular role in society, a member of a particular group or claims particular characteristics that identify him or her as a unique person. Identity also refers to the sameness and continuity of a person's psychological functioning, interpersonal behaviour and commitments to roles, values and beliefs (Lerner & Steinberg, 2009). Another concept is self-esteem, which involves evaluating how one feels about one's self-concept,

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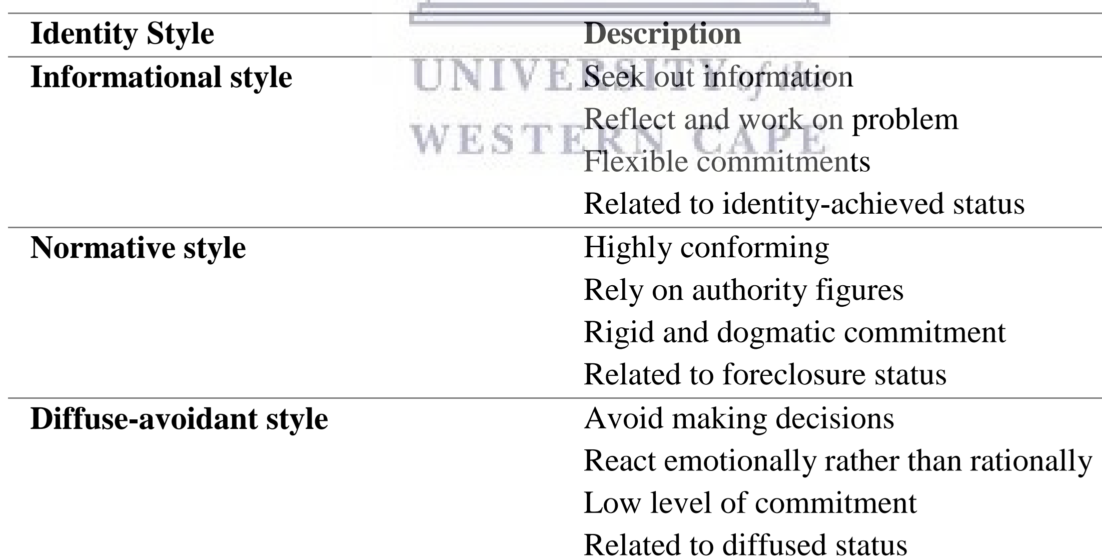
(American Psychological Association, 2002). Self-esteem develops uniquely for each adolescent, and there are many different trajectories of self-esteem possible over the course of adolescence (Copeland, Dielman, Shope & Zimmerman, 1997). Many factors influence identity development and self-esteem during adolescence. An example given by Keating (1990) states that adolescent's developing cognitive skills enable them to make abstract generalizations about the self. The process by which an adolescent begins to achieve a realistic sense of identity also involves experimenting with different ways of appearing, sounding and behaving (American Psychological Association, 2002).

Another way of looking at identity formation involves focusing on the styles that individuals use in constructing a stable identity and thus focusing on the process rather than on identity status, given that personal identity tends to be constructed in social interaction with family, friends and others (Berzonsky, 1989). Berzonsky suggested three styles: informational, normative and diffuse-avoidant:



Identity Style	Description
Informational style	Seek out information Reflect and work on problem Flexible commitments Related to identity-achieved status
Normative style	Highly conforming Rely on authority figures Rigid and dogmatic commitment Related to foreclosure status
Diffuse-avoidant style	Avoid making decisions React emotionally rather than rationally Low level of commitment Related to diffused status

The informational style involves having high self-esteem, seeking out information, working on the problem, making flexible commitments and being willing to reflect on the issue (Atkin & Noller, 2014). This style is generally seen as the most adaptive style (Berzonsky, 1992). The normative style involves a close-minded approach rather than exploration (Berzonsky,

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1992) and is associated with foreclosure status. Those with a normative style tend to be highly conforming, relying heavily on authority figures such as parents and their commitment tends to be rigid and dogmatic in line with their highly stable identity (Berzonsky & Neimeyer, 1994). Schwartz (2001:23) notes "the normative style involves passive copying of external standards and strong resistance toward any attempt to change those standards". Adolescents with a diffuse-avoidant style tends to avoid making decisions and commitments and to deal with each situation as it comes, rather than having an integrated approach to life (Berzonsky, 1992). They are not good at problem solving and tend to react to situations emotionally rather than rationally (Atkin & Noller, 2014). It is also associated with low levels of commitment, as well as low self-esteem and an unstable view of self.

2.14.2. Sense of security

As teens' emotional maturity increases, their relationships with their peers change as they become more vulnerable and emotionally intimate with their peers (Morelli, 2010). The American Psychological Association (2002) defines a sense of security as anything from feeling safe from physical attack, to having confidence that your material needs will be met, to a psychological sense that everything will be alright. Modern psychologists have shown that the most important factor for an adolescent's healthy development is love and affection and a sense of security which is further dependent on the attitude of parents towards their children (Boll & Bossard, 1954). Since acceptance by a peer group grows more important to an adolescent, they start to modify speech, behaviour and even activities to fit in. This increased similarity among peers provides them a sense of security and affirms their acceptance into their chosen peer group (Morelli, 2010). The developmental theorist, Erik Erikson, describes this developmental step as a crisis of identity vs. identity confusion.

Identity versus confusion is the fifth stage in Erik Erikson's theory of psychosocial development (Cherry, 2016). This stage occurs during adolescence between the ages of

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approximately 12 and 18 and during this stage, adolescents explore their independence and develop a sense of self (Cherry, 2016). During the identity versus confusion stage, the conflict is centred on developing a personal identity and by successfully completing this stage, leads to a stronger sense of self that will remain throughout life (Cherry, 2016). A closer look at the identity versus confusion stage as projected by Cherry out of the psychosocial development theorized by Erik Erikson:

Psychosocial conflict:	Identity versus Confusion
Major question:	"Who am I?"
Basic virtue:	Fidelity
Important Event(s):	Social relationships

As adolescents transform from childhood to adulthood, teens may begin to feel confused or insecure about themselves and how they fit into society. Cherry (2016) states that as adolescents seek to establish a sense of self, they might experiment with different roles, activities and behaviour. Erikson describes this as an important process of forming a strong identity and developing a sense of direction in life.

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Since it is important for adolescents to "fit in" with their peer group, they may also decide to participate in the same hobbies or activities. According to Cherry (2016), this decision enables adolescents to spend more time together and to bond over shared experiences. Teens gravitate toward peer groups with whom they share similar backgrounds, interests or simply similar outlooks on life. Cherry (2016) continues to state that adolescent peer groups are closer and tightly knit. The increased vulnerability and emotional closeness of adolescent peer relationships require more trust; thus, there is a greater commitment and allegiance to their peer groups. Increased group cohesion also serves to create a sense of interpersonal safety and protection and adolescents feel safer and secure in their social support system (Cherry, 2016).

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2.14.3. Sense of orderliness

CTI Review (2016) states that a sense of orderliness is associated with other qualities such as cleanliness and diligence (and the desire for order and symmetry), generally considered to be a desirable quality. Orderliness can also be defined as the habit we develop to achieve our goals by doing the things we should do, when and how we should do those (Cherry, 2016). Various theories and approaches emphasize that individuals behave rationally in deliberately weighing perceived risks and rewards to arrive at a decision that reflects their underlying goals (Farley &Reyna, 2006). It is assumed that, when individuals possess accurate information about their personal vulnerability to the consequences of risk behaviour, and these risks outweigh the subjective value of their behaviour, they should generate a risk-averse response (Hsee, Loewenstein, Weber & Welch 2001). With orderliness comes self-discipline. Pickhardt (2011) states that self-discipline is the capacity to make oneself accomplish tasks that are hard or unwelcome to do and to resist what is tempting but not wise to do. To successfully master self-discipline, Pickhardt (2016) suggests the following four skills to manage the transition to self-reliance more effectively: i) concentration (against distraction); ii) completion (against quitting); iii) consistency (against irregularity) and iv) commitment (against defaulting).

i) **Concentration**: it requires paying attention and resisting distraction and escape. According to Pickhardt (2016), an adolescent who can pay sustained attention and not be diverted by other distractions, or lured away by temptations of entertainment, can get certain tasks done quickly and efficiently. It is far easier to concentrate on what one likes or loves doing than what one dislikes. Thus, Pickhardt (2016) makes the example of a teenager who can comfortably spend hours absorbed in playing games or social messaging for fun, but who cannot focus on what feels unpleasant or non-rewarding, like assigned work, for more than a very short length of time.

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ii) **Completion**: this skill requires follow-through from beginning to end, pursuing the objective when it becomes hard, or harder, to reach (Pickhardt, 2016). A lot depends on the power of the goal and the dedication of the adolescent, while at the same time requiring persistence in the face of fatigue and frustration (Pickhardt, 2016). Completion requires finishing what was begun.

iii) **Consistency**: requires continuity of effort for an ongoing effect to be maintained. Consistency of effort can require tolerance for boredom since repetition for its own sake can feel dull and repetitive, resulting in irregular application (Pickhardt, 2016).

iv) **Commitment**: this skill requires delivering to oneself or others something promised. It can be compared to contracting, where one agrees to hold one's word. According to Pickhardt (2016), an adolescent who keeps commitments can be counted on to mean what is said, as opposed to an adolescent who breaks agreements or promises to self and others, not only fails in getting something done, but becomes untrustworthy.

Practicing the four sets of skills of self-discipline in order to master self-reliance, can contribute to an adolescents' effective practice of orderliness and self-made decisions not only towards their fellow peers, but life decisions as well.

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2.15. Social acceptability

Most people share a similar craving for social acceptance. According to Bushman and DeWall (2011), social acceptance is pleasant, rewarding and in moderate quantities, associated with various indicators of well-being. Social acceptance means that people signal that they wish to include you in their groups and relationships (Leary, 2010). It occurs on a continuum that ranges from merely tolerating another person's presence to actively pursuing someone as a relationship partner (Bushman & DeWall, 2011). People experience social acceptance in numerous ways. It can refer to being chosen for a desirable job or having a romantic partner say "yes" to a marriage proposal. It can also refer to the acceptance by a peer group (McGuire

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& McMurran, 2005) or the acceptance of certain social normalities. Allen, Antonishak and McElhaney (2008) state that being accepted by one's peer group during early adolescence seems likely to pave the way for successful functioning throughout the course of adolescence and into adulthood. However, social acceptance does not only predict positive outcomes. Being rejected by peer groups can often lead to aggressive behaviour (Baumeister, Stucke, Tice & Twenge, 2001; Cairns, Warburton & Williams, 2006) and adolescents are less social and cooperative with others (Bartels, Baumeister, Ciarocco, DeWall & Twenge, 2007).

Social rejection means that others have little desire to include you in their groups and relationships (Leary, 2010). Social rejection can also refer to a complex construct, consisting of behaviours that can range from ignoring another person's presence to actively expelling them from a group or existing relationship (Bushman & DeWall, 2011). Social rejection thwarts a core human need and influences a variety of outcomes: emotional, cognitive, behavioural, biological and neurological. It tends to increase various types of negative emotions. According to Leary (2010), hurt feelings are the core emotional marker of social rejection which also increases anxiety, anger, sadness, depression and jealousy. It diminishes the state of self-esteem, defined as temporary feelings of self-worth (Cheung, Choi & Williams, 2000). Social rejection influences the cognitive process in two main ways: Firstly, it reduces performance on challenging intellectual tasks, resulting in subpar performance (Baumeister, Nuss & Twenge, 2002). Secondly, it causes people to become cognitively attuned to potential sources of social acceptance and to potential threats, presumably as a means of gaining acceptance of others (Williams, et.al. 2000). Rejection affects a broad range of behaviours too. Although it undermines the chances of gaining acceptance, social rejection often increases aggression (Bushman & DeWall, 2011). Crucially, offering socially rejected people a small taste of acceptance, even from one stranger, is enough to reduce their aggression (Bushman, DeWall, Im, Twenge & Williams, 2010). Social rejection also

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undermines self-regulation, better known as impulse control. When given the opportunity, socially rejected people would eat more than twice as many good-tasting, but unhealthy cookies, as non-rejected people would, but they would consume only one third as much of a bad-tasting, but healthy beverage (Baumeister, Ciarocco, DeWall & Twenge, 2005).

When socially rejected people receive an incentive for effective self-regulation, such as money, they regain their motivation and perform well. Framing self-regulation performance as a means of gaining future acceptance is also effective in undoing the self-regulation deficits following social rejection (Baumeister, DeWall & Vohs, 2008). Social rejection influences a variety of biological responses. When people experience social rejection, their hearts literally slow down (Crone, Gunther Moor & van der Molen, 2010) and they experience motivationally tuned changes in progesterone, a hormone associated with social-affiliative motivation (Eckel, Maner, Miller & Schmidt, 2010). Social rejection can lead to a person being judged negatively by others, increasing the release of the stress hormone cortisol (Dickerson & Kemeny, 2004) and stimulates production of pro-inflammatory cytokines (Aziz, Dickerson, Gable, Irwin &Kemeny, 2009). Social rejection increases activation in the brain regions that are associated with the affective component of physical pain (Eisenberger, Lieberman & Williams, 2003).

2.16. Tobacco use

Tobacco use is the most preventable cause of death worldwide and is responsible for the deaths of approximately half of its long-term users (Blecher & Ross, 2013). In 2011, tobacco use killed more than 6 million people, nearly 80% in low- and middle-income countries (Blecher & Ross, 2013). According to Eriksen, Mackay and Ross (2012), by 2030, more than 8 million people will die annually from tobacco use. Blecher & Ross (2013) further state that between 2002 and 2030, tobacco-attributable deaths are projected to decline by 9% in high-income countries, but are expected to double from 3.4 million to 6.8 million in low-income

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countries. While the majority will likely be killed by their use of cigarettes, the World Health Organization (WHO, 2006) reported that tobacco use in other forms will also contribute to worldwide morbidity and mortality. In South Africa, tobacco related diseases kill over 44 000 South Africans and over 7 000 South Africans smoke (StatsSA, 2010). At national level, smoking rates are lower, where 35.1% of adult men smoke compared to 10.2% of adult women. Furthermore, tobacco use among adolescents is the highest in the Western Cape, where 32.5% of adolescent men and 18.9% of adolescent women smoke (StatsSA, 2010). All forms of tobacco use have negative health consequences, though the severity of those consequences can vary substantially among products (WHO, 2006). Besides cigarettes, other forms of tobacco include cigars and pipes; bidis and krekets; e-cigarettes and waterpipes, better known as hookah-pipes (O'Connor, 2012). According to Britton, Le Houezec and McNeill (2011), there are evidence that some tobacco and nicotine products may pose less of a health hazard than cigarette smoking and so could potentially play a role in reducing morbidity and mortality due to smoking. However, as Borland, Boudreau, Cummings, Hammond, Kind, McNeill and O'Connor (2007) states, there is evidence that the public broadly misperceives the relative risks of smoking, tobacco use and nicotine, erroneously thinking smoked tobacco products are less hazardous than cigarettes, overestimating the health effects due to nicotine. This includes the recent form of tobacco smoking, the hookah-pipe.

Tobacco use is started and established primarily during adolescence (Center for Disease Control and Prevention, 2016). During this period, young people engage in risky behaviour including tobacco and substance use (Hall et.al, 2016), which are often linked to peer pressure with a high probability to start smoking (Botelho, Gorayeb & Rodina (2007). Adolescents are especially vulnerable to using tobacco and their parents, families and peers play important roles in this habit formation (Levesque, 2011). The use of tobacco and substances reduces

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stress, anxiety and depression, addiction to the nicotine in tobacco products and therefore provides negative reinforcement (Brannon & Feist, 2009). Social acceptability and social interaction were identified as some of the primary benefits people gain from tobacco use (Glantz & Ling, 2005). Evidence suggests that affective experiences such as feeling stressed and social situations which includes being in the company of others where smokers are present, can elicit the urge to smoke (Tsai, Tsai, Tsai & Wen, 2009). Tobacco is used by people to feel comfortable around others and is used in situations where smokers are trying to make friends, as well as in an attempt to feel more mature and attractive to others (Glantz & Ling, 2009).

2.17. Hookah-pipe

Hookah-pipe has been used to smoke tobacco and other substances, originating in Persia and India (American Lung Association, 2007). By the 19th century, Turkish women of high society used hookahs as status symbols; they can often be seen in the art of era (Bryce, Eissenberg, Primack & Walsh, 2009). Today hookah bars and cafes are quite popular in many parts of the world and are growing in popularity globally (American Lung Association, 2007). Although the hookah has been around for hundreds of years, it is not a safer alternative to smoking cigarettes (Page & Page, 2014). The hookah or waterpipe, a more recent form of smoking tobacco, is a waterpipe which contains multiple attached hoses, sharing a single mouthpiece among a number of individuals to inhale smoke from the apparatus (Onofre, 2008). Onofre (2008:8) states that "when hookah bubbles through water at the base of a hookah pipe, it cools the smoke, which forces a hookah smoker to inhale twice as deeply as a cigarette smoker, causing the smoke to penetrate deeper into the lungs". This means that due to the volume of smoke taken into the lungs when smoking hookah, forty-five minutes of smoking hookah equals smoking a packet of cigarettes (Donaldson & Gruber, 2012:213). Smoking the hookah pipe is a health hazard to smokers and others exposed to the discharged smoke (Alters &

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Schiff, 2011). The hookah contains four times the amount of nicotine - which is an addictive substance (Asotra, 2005). Although many hookah-smokers believe the use of a hookah-pipe poses less of a risk than smoking cigarette, the hookah-pipe still contains many of the same harmful toxins as cigarettes and other forms of tobacco (Amitai & Knishkawy, 2005). These toxins include tar, carcinogens, hydrocarbons and heavy metals (Hales, 2016). Other toxic compounds such as nicotine, carbon monoxide, formaldehyde, polyaromatic, arsenic and lead (Banoobhai, Gqweta, Gwala, Masiea, Misra, van der Merwe & Zweigenthal, 2013:848) are also released when smoking the hookah-pipe.

According to Gruber and Donaldson (2012), when hookah users share a pipe with numerous people, a number of communicable diseases are transmitted, including tuberculosis, hepatitis and herpes, amongst many other diseases. Tobacco smoke contains over 7 000 chemical compounds as either gases or as tiny particles which include carbon monoxide, arsenic, formaldehyde, cyanide, benzene, toluene and acrolein (Carson & Mumford, 2002), which does not make smoking hookah-pipe any better (van der Merwe et.al.2013). Asotra (2005) states that the various fruity flavours, tastes and aromas can be more harmful than disease causing cigarette smoke, which can lead to a hookah addiction. This means that the hookah-pipe has multiple risk factors. These risks include increased risk for many cancers such as the mouth, lung, stomach and bladder and increased risk of heart disease and stroke (Mayo Clinic, 2010).

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Despite the negative health effects, the use of the hookah pipe is becoming more common (Akl, Co, Irani, Jawad, Lam& Obeid, 2013). The popularity of the hookah pipe has spread throughout different countries, economic classes and age groups and forms part of a popular social activity amongst adolescents and young adults (Onofre, 2008). Adolescents especially are increasingly using it (Bonnie, Kwan &Stratton, 2015). This popularity amongst the youth could be due to the social acceptability of the hookah pipe (Alsa'di, Alzoubi, Bibars, Khabour,

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Khader, Mahasreh & Obeidat, 2014). Smoking the hookah pipe is seen as a highly acceptable social practice (Zhang, 2008), because the most common setting for smoking the hookah-pipe is at social occasions (Combrink, Irwin, Laudin, Mathee, Naidoo & Plagerson, 2010). These occasions include smoking on a university campus, at parties, at a friend's house, in the family home and at restaurants that allow the smoking of hookah pipes (Van der Merwe, et.al. 2013).

Adolescents strive for individualism, while at the same time having a need for acceptance (Foo, Geldard & Geldard, 2015). This need for acceptance drives adolescents to join with peers, which in turn, may have strong pressure to participate in undesired or undesirable activities as the price of acceptance. Jessor (1984, cited in Johnson &Trinidad, 2000: 96) states that efforts to be more socially accepted or desired or to be more grown up have been shown to contribute to experimentation of tobacco among adolescents, which includes the more recent social phenomenon, the hookah pipe.

2.18. Family influence on smoking

Family smoking behaviour, especially that of parents, is strongly associated with adolescent smoking initiation (Eaton, 2008). Though the evidence for the importance of parental smoking behaviour is extensive, the potential theoretical explanations for the relationship between parental smoking and adolescent smoking initiation are even more diverse than those suggested for peers (Eaton, 2008). Eaton (2008) further states that, family smoking could exert its influence through modelling, verbal persuasion, greater access to cigarettes, or levels of parental control of adolescent behaviour. It could also reflect the fact that parents and children share genetic factors. According to Na Anna (2013), most family members would use different forms of smoking, such as narghile (better known as the hookah-pipe), together with their children and offering it to guests as social use. According to Abrams, Buka, Boergers, Clark, Colby, Gilman, Hitsman, Kazura, Lipsitt, Lloyd-Richardson, Niaura, Rende, Rogers, Stanton and Stroud (2009), parental smoking is an important source of vulnerability

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to smoking initiation among adolescents and parental smoking cessation might attenuate this vulnerability. This could be done, depending on the type of parenting style practiced by parents.

2.19. Are families a risk for future smoking?

Experimentation with substances usually takes place during adolescence (British Medical Association, 2003; National Centre for Health Statistics, 2010) and although the majority of adolescents emerge from this period without any problems, a proportion develops patterns of heavy or problem use associated with future risk of substance use disorder (Heron, Hummel, Moore, Shelton & van den Bree, 2013). According to Conger, Heylen, Little, Rende, Shebloski and Slomkowski (2009) and Silbereisen and Weichold (2006), a number of studies indicate that children from homes characterized by poor family structures are at increased risk of early substance use initiation and progression to heavy or problem use. Research indicates that, low levels of positive parent-child communication and low levels of parental monitoring are associated with increased adolescent substance use (Fröjd, Kaltiala-Heino, Koivisto & Marttunen, 2011; Dishion, Bullock & Nelson, 2004). Brody and Ge (2001) state that a possible explanation for these findings is that parent-child relationships that are non-supportive or characterized by conflict can undermine adolescents' ability to regulate their behaviour in a goal-orientated way, with low levels of self-regulation associated with greater risk of alcohol use. Adolescents coming from non-supportive homes may be likely to engage with deviant peers to gain social support and a sense of belonging, as stated by Silbereisen and Weichold (2006). According to Shelton & van den Bree (2010), it is suggested that adolescents use substances as a way to cope with family relationships characterized by hostility and low levels of warmth and affection.

According to Connor, Higgins and McMillian (2005) and Candel, de Vries, Mercken and van Osch (2011), research in adolescents has demonstrated that individual cognitions are formed

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by distal factors at the interpersonal level, such as family and peers. Bandura's social learning theory (SLT) proposes that smoking behaviour may be directly acquired through modelling the behaviour of significant others (Bandura, 1986), which is similar to the attitudes and values towards smoking which are partly formed by observing others smoking. Farhat and Simons-Morton (2011), Britton and Leonardi-Bee (2011) state that parental, sibling and peer smoking could be significant risk factors for smoking uptake. Previous research done in the US showed that having a family member that smokes is associated with more favourable implicit attitudes towards smoking compared with children with non-smoking members (Andrews, Greenwald, Gordon & Widdop, 2010). Parental smoking is also related to perceived safety of casual smoking and temptation to smoke in response to smoking related cues such as seeing someone smoke (Engels, Kleinjan, Otten & Schuck, 2012). Evidence also suggests that there are gender differences concerning the influence of social factors on smoking uptake in adolescents. Mothers who smoke are reported to influence smoking uptake in girls (Bottoroff, Reid & Sullivan, 2011), whereas fathers and friends who smoke have been found to be stronger influences for boys (Gilman et.al. 2009; Hoffman, Sussman, Unger & Valente, 2006).

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Data shows youth often participate in activities or risk behaviours that can negatively impact them (Centers for Disease Control and Prevention, 2009). According to Arheart, Dietz, Lee, McClune and Sly's (2016), research reports, with specific relation to tobacco use, that family engagement can play a crucial role in youth cigarette use prevention and uptake. This may also include the use of the hookah-pipe. Results have proven that youth eating family dinners together at least five times per week are less likely to participate in risk behaviours such as alcohol consumption, substance use or tobacco use (National Centre on Addiction and Substance Abuse, 2011) compared to youth reporting eating family meals infrequently – less than 3 times a week - are about four times more likely to smoke. Authors argue that family

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togetherness and the conversations that happen over dinner are key factors affecting youth and their relationships with their peers (National Centre on Addiction and Substance Abuse, 2011; 2012). As gathered, family bonding is the cornerstone of the relationship between parents and children. Hawkins, Haggerty, Kosterman, Spoth & Zhu (1997) suggested that bonding can be strengthened through skills training regarding the supportiveness of children, the interaction of child-parent and parental involvement.

2.20. Existing literature on hookah-pipe

International research focuses on many aspects regarding adolescent hookah-pipe smoking. Prevalence studies internationally show that the hookah-pipe prevalence rates have increased particularly in the Middle East, replacing cigarettes, the most common form of tobacco use (Auf, Bahelah, Islam, Jaber, Maziak, Taleb & Salloum (2014). In 2008, hookah use reached the highest prevalence ever reported for both genders (Al- Delaimy, Edland, Smith, Hofsetter, Lindsay, Novotny & White, 2011). In several other parts of the world it is becoming second only to cigarettes (Maziak, 2013). According to El-Awa, Jones and Warren (2010), in the Middle East particularly, several epidemiological surveys have documented the dramatic popularity of waterpipe smoking among youths, replacing cigarettes, the most common form of tobacco use. The hookah, also known as Shisha, is very frequently smoked by youth, young professionals and university and college students (Ramachandra & Yaldrum, 2015).

As a result of the rising popularity, hookah-pipe smoking is a growing threat to personal health. South African research reports on this matter, stating that the waterpipe could be considered to be a health risk due to presence of nicotine and toxic heavy metals in the smoke of the waterpipe, despite the belief that it is a safer alternative than cigarettes or other forms of tobacco (Daniels & Roman, 2013). According to Ayo-Usuf, Louwagie, Okuyemi and Senkubuge (2011), although research in South Africa reports on the health matter regarding

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the hookah-pipe, studies elsewhere suggest waterpipe use is a growing problem among young adults.

During the period of adolescence, they engage in risky behaviour which includes tobacco smoking (Degenhardt et.al. 2016) and often the engagement may be due to peer pressure (Kalhar, 2011; van der Merwe, et.al. 2013) in order to fit in with others for the purpose of being accepted (Coster, 2015). The family context could also be perceived as a platform for acceptance of hookah-smoking, as it is within the family that the first process of socialization occurs (Roman et.al, 2016).

Research on the hookah-pipe focuses on the prevalence, awareness and smoking of the hookah amongst women and men internationally (Smith et.al., 2011). In South Africa the research focuses on the health risks (Daniels & Roman, 2013), preventions of tobacco use (Abdool, Allwood, Dheda, Gaffar, Lalloo, Murphy, Richards, Stickells, Symons,Vanker & van Zyl-Smit, 2013), early age of onset (Daniels & Roman, 2013) and families being a risk factor for future addiction (Roman et.al. 2016). Although studies provide evidence that the hookah-pipe is used mostly during social settings, and permissible in some family contexts, it does not provide sufficient evidence whether peer pressure and social acceptability are associated with hookah-pipe users. Therefore, this study sought to determine whether there was a relationship between peer pressure and social acceptability of adolescent hookah-pipe users and to compare this relationship among hookah-pipe users and non-users.

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2.21. Conclusion

In this chapter, the conceptual framework covered the theoretical and literature aspect pertaining to the study at hand. Given the results of previous literature, the hookah-pipe is becoming more of a social phenomenon. Although the hookah-pipe is not a safer alternative to cigarettes, it is increasingly becoming more popular among adolescents. Research suggests that there is a link between peer pressure, social acceptability and cigarettes, but unknown to

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the hookah-pipe. The next chapter will elaborate on how data was obtained to determine if there is a relationship between peer pressure and social acceptability among hookah-pipe users and non-users.

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CHAPTER THREE

METHODOLOGY

3.1. Introduction

This chapter outlines the aims and objectives as identified in Chapter One. The methodological approach and research design used are also carefully explained. Furthermore, the chapter describes the population and sample group for the study and how the data collection was conducted. This chapter also elaborates more on the instruments administered during the data collection procedure and outlines the descriptions and scoring of the items. In conclusion, the validity and reliability of the instruments are discussed and how the results were analysed. The ethical considerations during the data collection process are also discussed.

3.2. Methodological approach

A quantitative methodology was utilised to investigate the relationship between peer pressure and social acceptability between hookah-pipe users and non-users. Leedy and Ormrod (2001) define research as the process of collecting, analysing and interpreting data in order to understand a phenomenon. Research originates with at least one question about the phenomenon of interest. According to Williams (2007), research questions help researchers to focus thoughts, manage efforts and choose the appropriate approach or perspective from which to make sense of each phenomenon concerned.

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Colby (2010) defines quantitative research as the manipulation of numbers to make claims, provide evidence, describe phenomena, determine relationships or determine causation. In addition, Creswell (2013) gives a more concise definition, defining quantitative methodology as a type of research explaining a phenomenon by collecting numerical data that is analysed using mathematically based methods (in particular statistics).Creswell (2002) asserts that quantitative research originated in the physical sciences, using mathematical models as the

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methodology of data analysis. Three historical trends pertaining to quantitative research include research design, test and measurement procedures, and statistical analysis (Williams, 2007).

What constitutes a quantitative research method involves a numeric or statistical approach to research design (Williams, 2007). Leedy and Ormrod (2001) alleged that quantitative research is specific in its surveying and experimentation, as it builds upon existing theories. The methodology of a quantitative research maintains the assumptions of an empirical paradigm (Creswell, 2003). The research itself is independent of the researcher. Williams (2007) further states that as a result, data is used to objectively measure reality and thus, quantitative research creates meaning through objectivity uncovered in the collected data.

Hohmann (2006), asserts that the quantitative methodology includes surveys or questionnaires, laboratory experiments, formal as well as numerical methods. This study quantifies the variables of the relationship between peer pressure and social acceptability among hookah-pipe users and non-users. Thus, this study uses surveys, statistics and numbers to express facts and is used to answer questions such as who, what, how many and how often (Kolb, 2006).

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3.3. Research design

A research design, as defined by Creswell (2013:12), are types of inquiries within the qualitative, quantitative and mixed methods approaches that provide specific direction for procedures in a research design. This study used a cross-sectional comparative correlation design. A cross-sectional design means data on the variables which the researcher is interested in, are collected more or less simultaneously (Bell & Bryman, 2015). With a cross-sectional design, data are collected from multiple groups or types of people such as males and females, socio-economic classes, multiple age groups or people with different abilities (Christensen &

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Johnson, 2010). The researcher does not manipulate any of the variables as the data is collected more or less simultaneously (Bell & Bryman, 2015). The comparative part of the study is to determine the extent of a relationship between two or more variables, such as peer pressure and social acceptability, using statistical data (Shirish, 2013). Correlational research is used to describe the relationship between two or more naturally occurring variables (Kite &Whitley, 2013). According to Kite and Whitley (2013), it describes a linear relationship between the variables (e.g. peer pressure and social acceptability), but does not imply a cause-and-effect relationship. It does, however, imply that the variables share something in common (Kite &Whitley, 2013).

The aim of this study was to compare the relationship between peer pressure and social acceptability among adolescent hookah-pipe users and non-users. Thus, a correlational study was appropriate as there were scores derived from answers on the questionnaires on these variables from the same participants and statistical relationships were examined.

3.4. Population and sampling

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The population refers to the group (of people) about whom researchers want to draw conclusions (Babbie & Mouton, 2010). This study focused on the Metro East District within the Western Cape Education Department, which compromises of 58 secondary schools. The sampling frame for this research was Grade 9 learners from the 2017 registered list of learners of the two secondary schools enlisted in the Metro East District. Three schools were initially chosen, but only two schools were accessed within the Metro East District. One school was accessed within the Cape Winelands District. This will be elaborated on more under the data collection procedure. Together, the 58 schools have approximately 12 641 grade 9 adolescents, 48.2% males and 51.8% females. The final population of this study consisted of 270 Grade 9 adolescents. The chosen population were geographically accessible and convenient for the researcher, as the researcher resides near the secondary schools. The focus

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on grade 9 learners is due to the grade being an exit level as well as the onset of risk behaviour (Haw, Jackson & Sweeting, 2012). Risk behaviour such as tobacco use is clustered in adolescence (Jackson, et.al. 2012), as during this period, adolescents go into the experimentation phase.

All grade 9 learners were provided with information sheets (see Appendix B) and consent forms for parents (see Appendix C) as well as information sheets (see Appendix B) and assent forms for participants (see Appendix C). Time was allocated to explain the information sheet and what the study was about. Once this process was done, participants were given time to complete their assent forms in order to continue with the study. Each participant was then given a questionnaire to complete. Completion of the questionnaire took about 20-30 minutes. A more in-depth discussion of the main study follows under the data collection procedure.

Sampling can be defined as selecting the elements to be observed (Babbie & Mouton, 2010). A two-stage sampling technique was used in this study. The quantitative paradigm uses probability sampling techniques (Delport, de Vos, Fouche & Strydom, 2011), thus making it the best suited sampling technique for this study. Cluster sampling can be defined as any sampling unit with which one or more listing units can be associated (Lemeshow & Levy, 2013). The unit can be geographical, temporal or spatial in nature. A cluster sampling technique was first applied in order to divide the total population into different socio-economic groups of schools. The schools were clustered into three socio-economic class groups in terms of average school fees per learner. The groups consist as follow: 1) low to none class school fees; 2) medium class school fees; and 3) high school fees. Random selection was done of one school per cluster group. A random sample requires that each individual in the population has an equal chance of being selected (Gravetter & Wallnau, 2009). The final sample was 2 schools, equating to 270 Grade 9 learners, consisting of 129 males and 141 females. This sampling will allow different socio-economic groups of a

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population to acquire sufficient representation in the sample (Creswell, 2003). The following schools were randomly sampled according to the different socio-economic status of the school:

Socio-economic status	Male	Female	Total
Medium school fees	71	67	132
Low to none school fees	58	74	138
Final Total	129	141	**270**

3.5. Data collection instruments

Structured instruments were given to the participants to complete. The instruments that were used included three sections: Section A: explores the demographic information of the participants. The questions in this section include the following items: gender, race, age etc. Section B was the Tobacco Use Scale and Section C: A Peer Pressure and Acceptance Scale. The questionnaires were printed in English and Afrikaans. The majority of the participants were Afrikaans. Therefore, the same English questionnaire was translated into Afrikaans for those whose home language is Afrikaans.

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3.5.1. Demographic information

Research participants were asked to indicate the following demographical information:

1. Their age
2. Their gender - male or female
3. Their language - Afrikaans, English, IsiXhosa or Other
4. Their grade - Grade 9
5. Their residential area
6. With whom they reside - a choice of 14 answers to tick
7. Their average school fees per year - ranging from R0 - R20 000 or above

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This information was not a separate tool. All three sections formed part of the whole questionnaire. The Grade 9 participants were asked to gather in the school hall, where there was enough space for each learner. This was where the demographics together with the rest of the questionnaire were recorded.

3.5.2. Tobacco use

The tobacco use questionnaire was a 22 item self-report adapted from the National ASH Year 10 Snapshot Survey, the 10-year in-depth survey, the health and lifestyle survey and peer pressure survey. The questionnaire was adapted to the hookah-pipe, by replacing the term 'cigarette' with 'hookah-pipe' and was measured on a 4-point likert scale ranging from 'strongly agree' to 'strongly disagree' (Tembo, 2015) including a selecting response scale. The questionnaire contained three subscales designed to assess: attitudes towards tobacco, parental rules and monitoring around smoking and smoking by family, friends and teachers. This questionnaire was also used to measure the prevalence of social acceptability and smoking tobacco using the hookah-pipe among adolescents. Examples of items included "hookah-pipe smokers are more popular" and "my parents or caregivers have set rules with me about not smoking cigarettes or tobacco". The reliability indicator is the cronbach alpha which ranges from 0.504 to 0.804. This is Section B of the questionnaire and forms part of the questionnaire as a whole. It was recorded in the school hall where all the participants gathered.

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3.5.3. Peer pressure and acceptance

This instrument was a 9 item self-report adapted from the NICHD Study of Early Child Care and Youth Development (2005), with a reliability indicator on the cronbach alpha of 0.89. The questionnaire was adapted to the hookah-pipe and was measured on a 3-point likert scale ranging from 'agree' to 'maybe'. This questionnaire was designed to assess self-acceptance

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as well as the acceptance by fellow peers. This questionnaire also measured peer pressure which includes questions such as “I would do something that I know is wrong just to stay on my friend’s good side”. This is Section C of the questionnaire and formed part of the demographics as well as Section B of the questionnaire as a whole.

3.6. Pilot study

A pilot study with 10% of the participants was done. Ary, Jacobs, Sorensen and Walker (2013) define a pilot study as an opportunity to assess whether the data collection methods and other procedures were done appropriately and accordingly and where to make changes if necessary. In addition, Cargan (2007) states that a pilot study is done before the main study is conducted and acts as a means of checking whether the survey can be administered and provide accurate data. Some of the advantages of a pilot study are that it gives the researcher an opportunity to obtain feedback from the pilot participants regarding how to improve it and also allows identifying any pitfalls or unanticipated barriers or problems (O’Reilly & Parker, 2014).

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The purpose of a pilot study is to test research protocols, data collection instruments, sample recruitment strategies, and other research techniques in preparation for a larger study (Hassan, Mazza & Schattner, 2006). It is one of the important stages in a research project and is conducted to identify potential problem areas and deficiencies in the research instruments and protocol prior to implementation during the full study (Kraemer, Mintz, Noda, Tinklenberg & Yesavage, 2006).

Together with my supervisor, we compiled the questionnaires for the pilot study which was done before the main study. The school selected for the pilot study, excluded the two schools selected for the main study. A meeting was first set up with the principal of the school to seek permission to do the pilot study. Once permission was granted, information sheets and consent forms were given to the parents of each learner to complete. Because some of the learners are

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stationed on the hostel, the principal had to sign a consent form as well as a letter stating that he gives permission and sign on behalf of those learners on the hostel (Appendix C). The consent forms were received and a telephonic contact with the principal concerned was made to confirm a date and time for the pilot study to take place.

On the day of the pilot study, the information sheets were administered to the participants. The information sheet was explained to them and time was given for any questions before hand. The learners were given consent forms (see Appendix D) that needed to be signed before administering the questionnaires, if they volunteered to partake in the study. The questionnaires were then administered to one grade 9 class which formed the pilot study. Twenty-eight English males and females partook in the pilot study in order to understand and determine from a quantitative perspective if there is a relationship between peer pressure and social acceptability among hookah-pipe users and non-users. It was also used to establish any challenges or limitations that may occur with this age group. Learners completed the questionnaires within 20-30 minutes.

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3.7. Data collection of the main study

The research was performed once permission was received from the Human and Social Sciences Research Ethics Committee at the University of the Western Cape. Further permission was sought from the Western Cape Education Department (Permission sheet). The principals of the various selected schools were contacted, informed about the study and also to get permission to perform the study at the school. Permission was granted to obtain the data from the various schools. These participants did not form part of the pilot study. Participants were gathered in the school hall to explain the information sheet as well as why the study will be done. It covered headings such as what is the study about, will their participation be kept confidential and the risks and benefits of the study. Participants were given the opportunity to ask questions with regards to the information sheet that was discussed and any other questions

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related to the study. Once this process was done, letters were sent home with the participants explaining to their parents the purpose, aims and objectives of the study (see Appendix B). A consent form was also attached to be signed (see Appendix C) by the parents. Once permission forms from parents were received, a date and time for the administration of the main study by the researcher were arranged with the principals and/ or grade head of the respective schools. On the day of the main study, the information sheets were discussed with the participants and emphasis was put on confidentiality and complete voluntary participation in the study. Time was allocated for any questions before assent forms were signed by each participant. The questionnaires were then administered to each participant for completion. The collection of the main study took 20-30 minutes per school, under the facilitation of the researcher and one teacher of each respective school. The researcher thanked each participant for their participation as well as the respective teachers involved.

The initial data collection process for the main studies was to gain access to the above-mentioned schools. The researcher only gained access to do the pilot study at one school and one school which was included in the main study, which falls under the low to none school fees. An alternative school was approached in Paarl, to participate in the study. The reason why the researcher was not granted access to any school from the high school fees category was because the staff was concerned that the researcher would promote the smoking of the hookah-pipe. The final total of participants for the main study was 270.

3.8. Challenges identified during pilot study

There were no challenges identified during the pilot study. The pilot study was done at the Western Cape Sport School, which included 10% of the main study participants. The participants in the pilot study did not form part of the main study. Information sheets and consent forms were given to parents to complete in order for their child to participate in the study. Due to the fact that some of the learners are hostel boarders, they did not have ready

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access to their parents to sign the consent forms. Therefore, the school acted in loco parentis, having the mandate to act on behalf of the parents to give permission for these learners to participate in the study. Participants also signed the assent form in order to participate in the study. They understood that their participation was voluntary and confidential. Questionnaires were administered to the participants. The researcher went through the questionnaire before completion to make sure participants knew what to do and if they had any questions with regards to the questionnaire. The pilot study was done within 20 to 30 minutes.

3.9. Changes made to instruments

No changes were made to the instruments. No difficulties were found when questionnaires were administered and completed.

3.10. Data analysis

The Statistical Package for the Social Science (SPSS) software was used to analyse the information, once the data were obtained from the participants. The information was entered into the SPSS Programme, coded and cleaned to check for any errors. The statistical analysis included descriptive and inferential statistics. The descriptive statistics will provide information on the frequencies, means and standard deviations. The inferential statistics will determine the nature of the relationships between the variables using correlations and regression analyses as well as testing for significant differences between groups using independent t-tests.

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3.11. Reliability and validity

For this study, the Cronbach alpha was calculated to indicate the reliability of the instrument. The reliability of the instruments was also assisted by the pilot study before the main study was conducted.

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3.12. Ethical statement

The ethical considerations, as stipulated by the University of the Western Cape, will be adhered to. The main study with grade 9 adolescents from the Metro East District, Cape Town, continued once permission was granted from Human and Social Sciences Research Ethics Committee, Senate Research Committee and the Western Cape Education Department, Ethics reference number HS 16/7/8. When performing the study, it is important to avoid any harm to the participants (Babbie: 2007). Harm can occur in an emotional or physical way. Therefore, the researcher ensured that if the participants experienced a challenge in any manner during the data collection process, they could be referred for appropriate counselling and support at school. Voluntary participation and informed consent go hand in hand and form part of the essential rule in the ethics of social research. Within the information shared in the informed consent letter, participants were informed on the necessary information needed to make an informed decision if they want to participate or not. Information such as the participant's involvement, possible advantages and disadvantages as well as the right to voluntary participation, where participants may withdraw at any time with no consequences, was made visible and thoroughly explained to the participants (de Vos et.al. 2011). It is of utmost importance to inform participants of their privacy rights during the process of data capturing and data analysis. This means that participants were informed that their participation is anonymous and that their information is confidential. Therefore, to protect the researcher, as well as the participant, no names were requested on any data collection method and although their names and signature were asked on the assent forms, the researcher only had access to their anonymous responses which were extracted and stored in a central database. A coding method was applied to protect the confidentiality and anonymity of the participant. Codes were used on data documents (completed questionnaires). The data obtained will be encrypted. After analysing the data, the documents will be securely stored within a locked

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location only to be accessed by the supervisor and student. Lastly, security codes will be assigned to computerized records.

3.13. Conclusion

This chapter provides a comprehensive description of the methodological approach used in this study. The quantitative method used to achieve the aims and objectives was also explained in detail. An in-depth account is given on the sample selection and the data collection procedure, alongside the questionnaire administered. The chapter rounds off with the ethical considerations and limitations of the study. The next chapter presents a summary and results based on this study in a journal article format.

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CHAPTER 4

ARTICLE

Peer pressure and social acceptability between hookah-pipe users and non-users amongst a sample of South African adolescents

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Abstract

Background The hookah-pipe is a high-risk phenomenon which is often an acceptable social practice, but the extent of its acceptability is not very clear amongst South African youth nor is the influence of peers very clear.

Objective The purpose of this study was to establish the link between social acceptability and peer pressure and to compare this relationship among hookah-pipe users and non-users in a South African sample of adolescents.

Methods: A cross-sectional comparative correlation study was conducted among Grade 9 adolescents attending secondary schools in the Metro East Education District in Cape Town. The final sample consisted of 270 participants. A questionnaire was used to collect the data and the data was analysed using SPSS.

Results: The results show that no relationship was found between peer pressure and social acceptability, but a relationship was found between parental rules and monitoring around tobacco use for hookah-pipe users. A significant difference was also found on the attitudes towards hookah use among users and non-users.

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Conclusion This study provides a descriptive study of hookah-pipe users and non-users amongst Grade nine adolescents. A further study in the qualitative research approach, may be helpful in gaining more insight into understanding how parental rules and monitoring are put in place and why users and non- users' attitudes towards tobacco use differ so significantly. The implications and significance of this study are further explained

Key Words

Hookah-pipe, Tobacco, Cigarette, Social acceptability, Social phenomenon, Adolescent, Peer pressure, Parents

Tobacco use is one of the most preventable causes of death worldwide and is responsible for the deaths of approximately half of its long-term users (Blecher & Ross, 2013). In 2011, tobacco use killed more than six million people, with nearly 80% thereof in low- and middle-income countries (Blecher & Ross, 2013). There are an estimated 1.3 billion smokers worldwide and over five million deaths per year attributable to tobacco smoking (World Health Organization, 2008). Recent estimates suggest that in 2012, 928 million men and 207 women were current smokers of any tobacco product globally (Ng et.al. 2014). Jonas, Reddy, Sewpaul, Shisana and Zuma (2015) reported that, in South Africa, 20.1% of adults reported current use of any tobacco product, while males had a higher prevalence of current tobacco use (31.0%) than females (10.3%). The remaining 59% may have indicated that they do not smoke any tobacco products. There is significant variation by income status for tobacco smoking. The majority of the world's smokers (81%), are in low-and middle-income countries (WHO, 2006). Smoking prevalence among males in middle-income countries (45%) is higher than that among males in high-income countries (32%), while the reverse is true for females with 7% in middle-income countries and 18% in high-income countries (Anderson, Becher & Winkler, 2016; WHO, 2009).

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In 2008, Shilubane, James, Reddy, Ruiter, Sewpaul and van den Borne (2013) established that 21% of school learners were found to be current smokers, with 6.8% having initiated smoking before the age of ten years. Tobacco smoking in adolescents frequently leads to long-term nicotine addiction and the consequent adverse health effects (van Zyl-Smit, et.al. 2013). Furthermore, adolescents who have been exposed to smokers are more likely to smoke than those who have not (74.5% versus 44% respectively) (van Zyl-Smit, et.al. 2013).

The hookah or waterpipe, is a form of tobacco smoking, which contains multiple attached hoses, sharing a single mouthpiece among a number of individuals to inhale smoke from the apparatus (Onofre, 2008). Although many hookah-smokers believe the use of a hookah-pipe poses less of a risk than smoking cigarettes, the hookah-pipe still contains many of the same harmful toxins as cigarettes and other forms of tobacco (Amitai & Knishkawy, 2005). These toxins include tar, carcinogens, hydrocarbons and heavy metals (Hales, 2016). Other toxic compounds such as nicotine, carbon monoxide, formaldehyde, polyaromatic, arsenic and lead (Banoobhai, Gqweta, Gwala, Masiea, Misra, van der Merwe, & Zweigenthal, 2013:848) are also released when smoking the hookah-pipe. While there are many health risks to the hookah-pipe, there is an increase in using it (Balogh, Nass & Patlak, 2013). Adolescents are increasingly using the hookah-pipe (Bonnie, Kwan & Stratton, 2015).

Smoking the hookah pipe is seen as a highly acceptable social practice (Zhang, 2008), and the most common setting for smoking the hookah-pipe is at social occasions (Combrink, Irwin, Laudin, Mathee, Naidoo & Plagerson, 2010). These occasions include smoking on a university campus, at parties, at a friend's house, in the family home and at restaurants that allow the smoking of hookah pipes (Daniels & Roman, 2013). Smoking the hookah pipe became a more recent social phenomenon, has become very popular, pervaded many countries and is becoming a social practice globally, particularly among young people (Lapointe, 2008; van der Merwe et.al. 2013). It may be that the hookah is also perceived as being socially acceptable.

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In spite of the negative health effects, the use of the hookah pipe is becoming more common (Aghamohammadi, Aghazadeh, Alias, Chee Wai Hoe & Wong, 2016). The popularity of the hookah pipe has spread throughout different countries, economic classes and age groups and forms part of a popular social activity among adolescents and young adults (Onofre, 2008). This popularity among youth could be due to the social acceptability of the hookah pipe (Obeidat et.al. 2014).

Adolescents strive for individuation, while at the same time having a need for acceptance (Foo, Geldard & Geldard, 2015). This need for acceptance drives adolescents to join with peers, which in turn, may have strong pressure to participate in undesired or undesirable activities as the price of acceptance. Borek, Chen, Portnoy, Tworek and Wu (2014) state that efforts to be more socially accepted or desired, or to be more grown up have been shown to contribute to experimentation of tobacco among adolescents, which includes the hookah-pipe.

Generally, young people engage in risky behaviour, including tobacco smoking and substance use (Hall et.al. 2016). This risky behaviour is often linked to peer pressure with a high probability to start smoking (Alves Diniz, Camacho, Gasper de Matos, Simões & Tomé, 2012). Social factors such as friends and parents who smoke also influence smoking initiation and for many people, the use of tobacco and substances reduces stress, anxiety and depression (Brannon & Feist, 2009). The family context could also be perceived as a platform for acceptance of hookah-smoking, as it is within the family that the first process of socialization occurs (Jacobs, Roman, Schenk & September, 2016).

Research on the hookah-pipe mainly focuses on prevalence studies (Kruger, van Walbeek & Vellios, 2016) health risk behaviour (Burns et.al. 2016), age of onset (Daniels & Roman, 2013) and, the contributions of the family and addiction to the hookah-pipe (Roman et.al. 2016). Research shows there is a link between peer pressure, social acceptance and smoking cigarettes (Farhat &Simons-Morton, 2010) but this is unknown for the hookah-pipe. Thus, this study

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sought to compare the relationship between peer pressure and social acceptability among hookah-pipe users and non-users.

Research methods and design

A cross-sectional study was conducted to compare peer pressure and social acceptability between hookah-pipe users and non-users amongst a South African sample of adolescents.

Participants

This study focused on the Metro East District within the Western Cape Education Department, which compromises of 58 secondary schools. The sampling frame for this research was Grade 9 learners. The focus on grade 9 learners is due to the grade being an exit level as well as the onset of risk behaviour (Haw, Jackson & Sweeting, 2012). Risk behaviour such as tobacco use is clustered in adolescence (Jackson, et.al. 2012), as during this period, adolescents go into the experimentation phase. The final sample was 270 (141 females and 129 males) participants. The average age of participants was 14.89 (*SD*=.945) years. The majority race was Coloured (n=236, 90.8%) and Afrikaans speaking (n=184, 86.0%).

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Measures

A questionnaire was used to collect the data consisting of items from the 10-year in-depth survey, the health and lifestyle survey and peer pressure, as well as a NICHD Study of Early Child Care and Youth Development. There were different sections: Section A included demographic information where participants were asked to record their gender, age, sex, race, language and grade. Section B is a 22 item self-report section adapted from the National ASH Year 10 Snapshot Survey, the 10-year in-depth survey, the health and lifestyle survey and peer pressure survey. The questionnaire was adapted to the hookah-pipe, by replacing the term 'cigarettes' with 'hookah-pipe' and was measured on a 4-point likert scale (Tembo, 2015) ranging from 'strongly agree' to 'strongly disagree' including a selecting response scale. The

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questionnaire contains three subscales designed to assess attitudes towards tobacco, parental rules and monitoring around smoking and smoking by family, friends and teachers. This questionnaire was also used to measure the prevalence of social acceptability and smoking tobacco using the hookah-pipe among adolescents. Examples of items include “hookah-pipe smokers are more popular” and “my parents or caregivers have set rules with me about not smoking cigarettes or tobacco. Section C-) is a nine item self-report section adapted from the NICHD Study of Early Child Care and Youth Development (2005). The questionnaire was adapted to the hookah-pipe and measured on a 3-point likert scale ranging from ‘agree’ to ‘maybe’. This section is designed to assess self-acceptance as well as the acceptance by fellow peers. It also measured peer pressure which included questions such as “I would do something that I know is wrong just to stay on my friend’s good side”.

Data collection process

Permission was granted by the Human Social Sciences Research Ethics Committee (HSSREC) at the University of the Western Cape and the Western Cape Education Department to conduct the study. Upon permission from the principals, parents and learners, the data was collected in group sittings, within 20-30 minutes per sitting, facilitated by the researcher and a teacher at each school.

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Data analysis

The Statistical Package for the Social Science (SPSS) software was used to analyse the information. An independent t-test was conducted to compare for significant differences between the groups.

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Results

Table 1 represents the demographic information of each participant in this study.

Table 1: Demographic information of Participants

Variables			N = 270	%
Gender	Male		129	48.3
	Female		138	51.7
Race	White		3	1.2
	Black/ African		19	7.3
	Coloured		236	90.8
	Indian		2	.8
Living Arrangements	Mother		85	31.5
	Father		10	3.7
	Grandma		22	8.1
	Grandpa		1	.4
	Sister		2	.7
	Both parents		116	43.0
	Foster parents		5	1.9
	Caregivers		3	1.1
	Both grandparents		9	3.3
	Other family members		5	1.9
Age	Minimum 14	Maximum 18	*M* *14.89*	*SD* *.95*

Table 1 indicates that the majority of participants had a $Mean_{Age}$ of 14.89 (*SD*=.95) were female (138; 51.7%), Coloured (236; 90.8%) in Grade 9 and living with both parents (43%). In addition, almost one third of the participants (85; 31.5%) indicated that they live with their mother.

Table 2 indicates the participants' behaviour regarding tobacco use.

Table 2: Behaviour of Tobacco use

Variables		N=270	%
Do you smoke cigarettes?	Yes	69	25.6
	No	183	67.8
Do you smoke the hookah-pipe?	Yes	84	31.1
	No	139	51.5
Frequency of hookah use	Non-user	146	54.1
	Very light user	52	19.3
	Light user	31	11.5
	Moderate user	9	3.3
	Heavy User	2	.7
	Very heavy user	2	.7

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Hookah use in last 6 months	Yes	88	34.0	
	No	169	65.3	
Do you use the hookah as a replacement for cigarettes?	Yes	39	14.4	
	No	191	70.7	
Age of onset for hookah smoking	Minimum 9	Maximum 16	*M* *13.00*	*SD* *1.42*
Age of onset for cigarette smoking	Minimum 9	Maximum 17	*M* 13.26	*SD* *1.58*

The results in Table 2 show frequency of tobacco use among participants. More participants used the hookah-pipe (84; 31.1%) than those smoking cigarettes (69; 25.6%). The average age of onset for hookah smoking was 12.36 years old (*SD*= 2.95), while the age of onset for cigarette smoking was 13.26 years. The majority of the participants did not use the hookah as a replacement for cigarettes (191; 70.7%).

Table 3 shows the attitudes towards hookah use, peer pressure, parental rules and monitoring and social acceptability between hookah-pipe users and non-users.

Table 3: Attitudes, peer pressure, parental rules and monitoring and social acceptability of users and non-users

Variables	Minimum	Maximum	*M*	*SD*	*t*	*p*
Attitude towards hookah use	1.29 (1)	2.86 (3.43)	2.32 (2.52)	.32 (.37)	-3.48	**.00**
Peer pressure	1.22 (1.11)	2.56 (2.44)	1.66 (1.72)	.26 (.25)	-1.68	.10
Parental rules and monitoring	1 (1)	3.29 (3.00)	1.88 (1.80)	.48 (.46)	1.03	.30
Social Acceptability	3 (3)	17 (17)	10.38 (10.75)	2.73 (2.91)	-.82	.41

Non-user results in parentheses

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In comparing users and non-users, participants who used the hookah pipe scored less peer pressure (1.22), had higher parental rules and monitoring (1) and in terms of social acceptability, had an average score (10.38) which suggests that they showed an average degree of concern for being socially acceptable and that their behaviour in general is conforming to social rules and conventions. The only significant difference between the two groups was on

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attitudes, where participants who used the hookah pipe, had an average score (2.32) which suggests that lower responses indicates a positive attitude towards smoking.

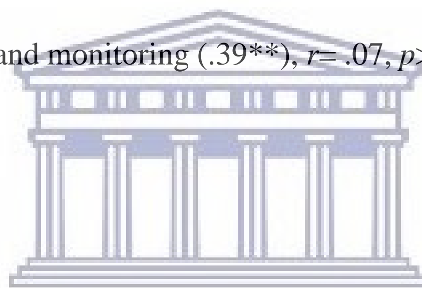
Table 4 shows the relationship found between the variables

Table 4: Relationships between the variables for users and non-users

	Variables	1	2	3	4
1	Attitudes towards hookah use		.15(.02)	-.04(.01)	.39**(.07)
2	Peer pressure	.15 (.02)			
3	Social acceptability	-.04 (.01)	-.07 (.01)		
4	Parental rules and monitoring	.39** (.07)	.12 (.12)	.21 (-.06)	

**. Correlation is significant at the 0.01 level (2-tailed)
Non-user results in parentheses

Table 4 suggests that a significant positive relationship was found between attitudes towards hookah use and parental rules and monitoring (.39**), $r = .07$, $p > .05$, only for users but not for non-users.



Discussion

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The aim of this study was to compare the relationship of peer pressure and social acceptability among adolescent hookah-pipe users and non-users. The hookah or waterpipe, a more recent form of smoking tobacco, is a waterpipe which contains multiple attached hoses, sharing a single mouthpiece among a number of individuals to inhale smoke from the apparatus (Onofre, 2008). Despite the negative health effects, the use of the hookah pipe has become more prevalent (Akl, Co, Irani, Jawad, Lam & Obeid, 2013) and even though the hookah has been around for hundreds of years, it is not a safer alternative to smoking cigarettes (Page & Page, 2014).

According to the results of this study, the average age of onset for hookah use is 12.36 years. A higher percentage was observed for smoking the hookah-pipe than smoking cigarettes and a larger percentage of the participants indicated that they do not use the hookah-pipe as

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replacement for cigarettes. This could mean that the majority of the participants prefer the hookah-pipe and that it is also seen as normal to smoke tobacco using the hookah-pipe.

In the current study, no relationship was found between peer pressure and social acceptability. This could be due to the majority of the participants who do not smoke the hookah-pipe and rather prefer to smoke other tobacco products or not engage in any kinds of tobacco use at all.

Smoking behaviour is influenced by proximal and distal psychological risk factors. According to Chau, Ho, Lai, Lam, Mak, Rao, Salili and Stewart (2005), proximal factors include peer influence, which is often expressed as peer pressure, and positive attitude towards smokers and smoking cohabitants (Ellickson, Jinnett & Orlando,2001; DeVires, Holm & Kremer, 2003). Distal factors include emotional distress from having a reciprocal relationship with smoking behaviour (Chen, Fang, Li, Lin, Liu, Stanton, Yang & Zhang, 2006), such as social motives, effects and stress, knowledge about smoking, perceived benefits of smoking, risk perception of smoking, media and tobacco advertising/ promotion and family and school environment (Betson, Chung, Hedley, Lam &Wang, 1999;Fava, Laforge, Prochaska, Rossi & Velicer, 1999; Fava, Prochaska, Rossi, Tsoh & Velicer, 2001). Based on the study done, a difference was found relating to the peer pressure variable between hookah-pipe users and non-users. The non-users, however, surpassed the users, which can be an indication that most of the participants are able to resist being pressurized to smoke, based on their knowledge and perceptions of smoking. Although there is a slight difference in the outcomes of peer pressure between hookah-pipe users and non-users, this might be an indication that peer pressure is not the reason why adolescents engage in smoking the hookah-pipe. Can it become a reason in the future?

The popularity of the hookah pipe has spread throughout different countries, economic classes and age groups and forms part of a popular social activity amongst adolescents and young adults (Onofre, 2008). Adolescents especially are increasingly using it (Bonnie, Kwan &

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Stratton, 2015). This popularity among youth could be due to the social acceptability of the hookah pipe (Alsa'di, Alzoubi, Bibars, Khader, Khabour, Mahasreh & Obeidat, 2014). Although the age of onset in the current study is similar to previous research (Hall et.al. 2016), of current concern is the possibility that smoking the hookah-pipe may be linked to being socially accepted by peer groups. As tested in the current study, those participants who indicated that they do smoke hookah-pipe, may be a result of, as identified by Crowne and Marlowe's social desirability scale (1960), participants' general behaviour for being socially accepted within their peer groups are pinned at an average degree of conforming to social rules and conventions.

A relationship was found with parental rules and monitoring around tobacco use for hookah-pipe users. Paradoxically, the users exceeded the numbers of the non-users in this regard, which may be a result of higher parental rules and monitoring around tobacco use for hookah-pipe users, than in the case of non-users. Baumrind's typology (1966), which consists of the permissive, authoritative and authoritarian parenting styles, is synonymous with research related to the parent-child relationship. These parenting styles reflect the patterns of parental values, practices and behaviours, as well as a distinct balance of responsiveness and sternness presenting different outcomes for children (Lacante, Makwakwa & Roman, 2016). The type of parenting approach practiced has an effect on the child, which is evidenced in a parenting style questionnaire conducted by Niaraki and Rahimi (2013), showing that parents do have the ability to support their children to make better choices on smoking, by practicing the appropriate parenting style.

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With reference to this study, the hookah-users reported that their parents may have set rules around tobacco use and the monitoring thereof. It might indicate that their parents allow them to use tobacco but under control. As Henrikson and Jackson (1998) reason, parents who smoke

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may also differ from non-smoking parents in the ways they try to prevent their children from smoking. According to Clark, Gautam, Scarisbrick-Hauser and Wirk (1999), some smoking parents may even believe that smoking in the presence of their children is inevitable and therefore may make fewer efforts to prevent their children from doing similarly.

This study found a significant difference on the attitudes towards hookah use between users and non-users, whereby non- users' attitudes exceeded those of users. This could mean that non-users portray a more negative attitude towards the hookah-pipe than users. The reason could be that, the non-smoking participants deem smoking to be unattractive and also an expensive activity. This finding is in line with a qualitative study done with adolescents between the ages 12-15 by Gabre, Hedman and Riis (2008) in Sweden, where participants' attitudes towards tobacco use varied. The adolescents in the study talked about the physical damage and the cost of tobacco as strong arguments for not using tobacco, but also emotional issues like the bad smell and the fact that it is unhygienic to use tobacco. Non-smokers are more sensitive to the tobacco atmosphere and given the many anti-smoking campaigns, children today have more negative attitudes regarding smoking (Alvaro, Burgoon, Grandpre, Hall & Miller, 2003).

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Although smoking poses many health risks, between 82,000 and 99,000 young people start smoking every day on a global level (Schawb, 2011). In relation to this study done, 51.5% of the participants indicated that they do not smoke hookah-pipe, whereas 31.1% of the participants indicated that they do. Contrary to the knowledge on health risks of smoking and non-users' views, the users in this study have different attitudes towards tobacco use. This may be that, they feel it is safe to smoke as one or both of their parents smoke. In light of international research, data from the 1994-2002 waves of the British Household Panel Survey, exploring the influence of parental smoking habits on their children's smoking decisions

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(Loureiro, Sanz-de-Galdeano & Vuri, 2006), shows clear evidence that for two-parent families mothers' and fathers' smoking habits play a statistically significant role for girls and boys respectively. Single parent households indicated that single parents' smoking choices significantly affect the smoking behaviour of their female teenagers, while this is no longer the case for male teenagers (Loureiro, et.al. 2006). Another reason contributing to users' attitudes towards smoking could be that they believe that smoking makes one feel more comfortable and possibly 'cool' at celebrations or parties. This can be verified in the SA study done on a decade of tobacco control by Reddy and Colleagues (2013). This study reported that a percentage of the participants reported on the above-mentioned statement, increased over the four survey years from 35.1% to 46.2% with significantly more learners reporting such in 2008 and 2011 than in 1999 and 2002. This trend was noted among both male and female participants.

Conclusion

This study has many positives which include a sample of Cape Town's 9th graders and the use of a quantitative methodology to determine the relationship between hookah-pipe users and non-users based on peer pressure and social acceptability. However, the study also had its limitations. Firstly, the study is limited to a sample of Cape Town's grade 9 adolescents and not communities outside of Cape Town as well. This is a small, but important part of the adolescent population. Secondly, the study relies on choosing the extent to which the participant agrees or disagrees and choosing between true or false. This may not have included all of the most important reasons. A qualitative research approach, providing the reasons on parental rules and monitoring around tobacco use, as well as users and non- users' attitudes towards tobacco use, may be helpful in gaining more insight into understanding how parental rules and monitoring are put in place and why users and non- users' attitudes towards tobacco use differ so significantly.

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Conflict of Interest

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CHAPTER 5
DISCUSSION, LIMITATIONS, RECOMMENDATIONS AND CONCLUSION

5.1. Introduction

The aim of the study is to compare the relationship between peer pressure and social acceptability among adolescent hookah-pipe users and non-users. The findings of this study are discussed in this chapter in relation to the theory discussed in Chapter 2. The discussion of this chapter is based on the following objectives of the study:

- Determine the prevalence of peer pressure, social acceptability and smoking tobacco using the hookah-pipe among adolescents;
- Establish the relationship between peer pressure and social acceptability of adolescent hookah-pipe users and non-users.
- Compare the relationship between peer pressure and social acceptability among adolescent hookah-pipe users and non-users.

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5.2. Prevalence of using the hookah-pipe

Although cigarette smoking is the dominant form of tobacco use in most parts of the world, the waterpipe, or the common name, hookah-pipe, is taking up its significant and growing share of tobacco use globally. It is most prevalent in Asia, Africa, and the Middle East, but it is a rapidly emerging problem in other countries. The hookah-pipe has a growing use by both men and women and, most seriously and disconcerting, among young people and children (WHO, 2014). Many hookah-pipe smokers practice the habit of smoking in the company of family and friends and it is a central component of social and family gatherings (Martinasek, Martini & McDermott, 2011; Abu Farhat, Afifi, Fouad, Hammal, Jarallah & Khalil et.al 2013; Balbach, Barnett, Carrol, Chang, Sidani & Soule, 2014; Auf, Bahelah, Islam, Jaber, Moziak & Taleb,

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et.al 2014). It is however, increasing globally among school children and university students (WHO, 2015).

The results of the current studies indicate that 31.1% of the sample was hookah-pipe users. According to international research, the highest prevalence rates for hookah-pipe use are among school children in Middle Eastern countries and university student groups of Middle Eastern descent in Western countries (Akl, Aleem, Gunukula, Honeine, Irani, Jaoude, & Obeid, 2011). Although research focusing on the hookah-pipe in South Africa is limited, the prevalence of hookah-pipe smoking among university students in Pretoria, South Africa, was 18,6% (Ayo-Yusuf, Louwagie, Okuyemi & Senkubuge, 2012), which is less than the sample of users in this study. Contrary to the study done among university students, a study focusing on secondary school learners in a disadvantaged community in Johannesburg, indicated that 60% of participants used the hookah-pipe, which included 20% daily use (Combrink et.al. 2010). This percentage is higher than the users in this study. Furthermore, the average age of onset for hookah-pipe smoking in this study was 12.36 years, while the age of onset for cigarette smoking was 13.26 years. A higher percentage was observed for smoking the hookah-pipe than smoking cigarettes, and a larger percentage of the participants indicated that they do not use the hookah-pipe as replacement for cigarettes. This could mean that the majority of the participants prefer the hookah-pipe and that it is also seen as normality to smoke tobacco using the hookah-pipe.

This study indicated that the majority of the participants reside with both parents (43%), who may possibly allow the use of the hookah-pipe or the smoke of tobacco at home or with peers. This is comparable with previous research done (Gatrad, Gatrad & Sheikh, 2007). In addition, the South African Youth Risk Behaviour Survey 2008 conducted by the Medical Research Council (Reddy et.al. 2010), indicated that the Western Cape Province (36,7%) has a

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significantly higher prevalence of current tobacco smoking and current frequent tobacco smoking (14.6%) than the national average of 21.0% and 5.8% respectively.

5.3. Peer pressure and social acceptability

The current study found no relationship between peer pressure and social acceptability. This could be due to non-users engaging in smoking different substances or not engaging in them at all. However, peer pressure and social acceptability still play a role in the use of the social phenomenon spreading across the globe, namely the hookah-pipe.

Since hookah-pipe smoking is prevalent in places such as hookah bars or cafés, restaurants, campuses and in the company of fellow peers, it created space for peer pressure and the initiation of first-time smokers (Haroon, Hyder, Mahmud & Munir, 2014). Not only do these places have an impact on first time hookah smokers or smoking behaviour, but proximal and distal psychological factors too. Proximal factors include peer pressure (Chau, Ho, Lai, Lam, Mak, Rao, Salili & Stewart, 2005), while distal factors include emotional distress from having a reciprocal relationship with smoking behaviour, such as social motives, media and tobacco advertising, as well as the family and school environment (Betson, Chung, Hedley, Lam & Wong, 1999; Fava, Laforge, Prochaska, Rossi & Velicer, 1999; Fava, Prochaska, Rossi, Tsoh & Velicer, 2001). Akin to previous research, being socially influenced to smoke the hookah-pipe could be negated by knowledge around the health hazards of tobacco smoking and can prove to be the reason why non-smokers do not find it hard to avoid the pressure from fellow peers.

The prevalence of hookah-pipe smoking could also be due to the social acceptability of the hookah-pipe and the belief that it is much safer than smoking cigarettes. Many hookah-pipe smokers practice the habit in the company of friends and family and it is a central component of social and family gatherings (Maziak et.al 2015). Sharing the same hookah-pipe is well recognised and the use of it is especially increasing amongst young people. According to this

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study, the participants scored an average score, which, according to Crowne and Marlowe's social desirability scale (1960), indicates that those participants show an average degree of concern for their social desirability amongst their peers. This may indicate that they do it to be 'cool' or to fit in with their peer groups. Even though studies show that tobacco is the leading cause of death in South Africa (Groenewald, Laubscher, Norman, Salojee, Sitas, van Walbeeck, Vos et.al 2007), causing approximately 41, 632 to 41, 656 deaths annually (Groenewald et.al. 2007), the social desirability scale also further states that these participants' general behaviour represents an average degree of conforming to rules and conventions of society, regardless their knowledge on the health hazards of smoking tobacco, especially with the hookah-pipe becoming the most desirable mode of smoking tobacco.

5.4. Parental rules and monitoring around tobacco use for hookah users

A relationship was found with parental rules and monitoring around tobacco use for hookah-pipe users. Participants in this study indicated that their parents may have set rules around the use of tobacco with the hookah-pipe and may also have a monitoring system in place. The parental rules and monitoring can be linked to the type of parenting style practiced by parents. Baumrind's typology (1966) which focuses on the parent-child relationships, introduced three different parenting styles namely authoritative, authoritarian and permissive, which ultimately play an important role in raising a child. However, according to Essay UK (2013), another important aspect of parenting style is that the adolescent behaviour is an important measure that can have a significant influence on parenting style. Participants in this study, who indicated that they may smoke the hookah-pipe, do so with their parents' consent and through monitoring by their parents. Neither one of the three parenting styles is perfectly right or completely wrong, but inconsistency in practicing one of the parenting styles can have a life-long damaging impact on the adolescent, which may result in future smoking.

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5.5. Attitudes towards hookah use between users and non-users

A significant difference was found in the attitudes towards hookah use among users and non-users for this study. The non- users' attitudes towards hookah use exceeded those of the users. This may be an indication that non-smokers are aware of the cost of smoking tobacco and the unattractiveness that goes with it. Another reason may be that they are well educated on the potential impact of the hookah-pipe on their health. Just like cigarette smoking, which causes up to 87% of lung cancer deaths worldwide (Eisner, Kosary & Ries, 2004; Burns, Calle, Henley, Jemal, Shanks & Thun, 2006), hookah smoking forms part of tobacco use. Scientific facts indicate that when compared to cigarette smoking, the number of puffs and volume from using hookahs are about ten times higher than cigarettes (Aljarrah et.al 2009). Hookah smoke also contains 36 times the amount of nicotine and higher concentrations of heavy metals (Asotra, 2005). The burning temperature of tobacco for hookah use is about 900° Celsius, compared to 450° Celsius for cigarettes (Koul & Sheikh, 2011).

Contrary to the non-users, the users in this study may believe that smoking the hookah-pipe is not harmful because of the belief that the smoke gets filtered in the water (Ford & Griffiths, 2014), which seems to be the main belief justifying the less harmful influence of the hookah-pipe. Smoking the hookah-pipe may also be weighed against being 'cool' and/or making you feel comfortable at any social occasion (Glantz & Ling, 2005). As for cigarette smoking, there is a negative social norm against cigarettes which is not applied to the smoking of the hookah-pipe. This may be because of its more recent trend and use (Ababneh, Al- Delaimy & Aljarrah, 2009).

5.6. Relating to the theory

The results of this study fit into the theoretical framework used. In this study, Kelman's Social Influence Theory (1958), was used to investigate if there is a relationship between peer pressure and social acceptability among hookah-pipe users and non-users. Of concern to this study was

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if there is a relationship between peer pressure and social acceptability among hookah-pipe users and non-users and then comparing this relationship between adolescent hookah-pipe users and non-users. The Social Influence Theory is a process whereby a person's attitudes, opinions, beliefs or behaviour are altered or controlled by others (Coleman, 2009). Even though no relationship was found between the two variables, based on the Social Influence Theory, peer pressure can be measured against conformity, which is a type of social influence involving a change in behaviour, belief or thinking to align with those of others or with normative standards (Singh Bagel, 2017). Hookah-pipe smoking in this study has become socially acceptable, due to public places such as cafés, restaurants and social occasions, allowing the smoke of the hookah-pipe. The trend in smoking tobacco through a hookah-pipe is becoming more widespread across all ages, especially adolescents because the belief is that it is less harmful than cigarettes and also the need to be popular or accepted by peers. Adolescents who reported smoking the hookah-pipe may yield to group pressure or being pressurized by the social norms or expectations that smoking the hookah-pipe is acceptable. Ultimately, the attitudes, beliefs and actions of adolescents to experiment with the hookah-pipe and initiating long-term smoking thereof, are influenced by the main three processes of the Social Influence Theory. These are based on: a) compliance, by seeing a change in the behaviour and sometimes attitude, b) identification, by being influenced by a person or group in order to establish a satisfying relationship with that person and or group and c) internalization, meaning to learn and adapt to the norms of society and fitting into those norms, regardless of their own norms.

The results of this study found a significant relationship between attitudes towards hookah use among adolescent users and non-users, whereby the attitudes of the non-users were more than the users. Although the social influence theory does not speak directly to the non-users, this study is comparable to a study done by Bahaninejad, Hashemi, Kareh and Momenabadi, (2016), which indicates possible factors affecting the hookah-smoking trend in society. The

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study addresses the users of the hookah-pipe, but can be used in contrast to this study as to why the non-users exceeded the users. Momenabadi, et.al. (2016) identified individual and psychological characteristics, individuals' perceptions of the risk of smoking hookah-pipe, culture, social acceptance, role of family and friends and the role of religion, as reasons which non-users may also consider when it comes to smoking the hookah-pipe.

5.7. Limitations of the study

There are known limitations to this research that deserves mentioning. The study was drawn only from low to none and middle school fees students in the Western Cape. The study should have included a high school fees school as well, but due to school rules and regulations and some schools' preparing for examination, no high school fees schools participated in this study.

5.8. Recommendations

Hookah-pipe studies in South Africa are still under research; thus, further recommendations for future hookah-pipe studies are needed and the practice thereof. The hookah-pipe has become a popular social trend among individuals of all ages. However, it would be beneficial to educate different professionals, parents, and especially primary school teachers on the health hazards of smoking the hookah-pipe. This will help to raise awareness of the dangers of smoking the hookah-pipe. Based on this information, an individual can then decide whether they should or should not smoke the hookah-pipe.

Further research is needed to determine the prevalence of hookah-pipe use and other tobacco infused products. Further studies on the hookah-pipe must also underscore the myth that smoking the hookah-pipe is not a safer alternative to cigarette smoking which includes addiction to it. The main focus of these studies must belie the above-mentioned myth, by clarifying it with health and mortality statistics, diseases and other health hazards related to hookah smoking as well as the risk of addiction.

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Furthermore, pertaining to the results of this study, future research must determine the specific rules set and the extent to which parents monitor those rules set for their children to smoke the hookah-pipe.

Future studies can also determine non- users' perceptions on smoking the hookah-pipe by using both qualitative- and quantitative methodologies for more effective results. Different schools with multi racial learners could be considered, as there is a deeper need of running workshops at schools to highlight the dangers of using the hookah-pipe.

5.9. Conclusion

This study was conducted with a small sample of Grade 9 adolescents in Cape Town, providing key findings in terms of determining the prevalence of peer pressure and social acceptability between hookah-pipe users and non-users among adolescents. An establishment was made to determine if there is a relationship between the two variables between adolescent hookah-pipe users and non-users and comparing this relationship between hookah-pipe users and non-users among adolescents. Ultimately, no relationship was found between the two variables, but a relationship was evident between parental rules and monitoring around tobacco use for hookah-pipe users and a significant relationship was found on the attitudes towards hookah use between users and non-users, whereby non-users' attitudes being higher than those of users. This is the first known study to establish if there is a relationship between peer pressure and social acceptability among hookah-pipe users and non-users among adolescents.

The findings in this study also further highlights the need for further research among adolescents to establish the prevalence of smoking hookah-pipe with other tobacco products, determining the set rules and monitoring parents put in place to screen the use of their child's hookah-pipe use as well as execute a qualitative- and quantitative study in determining non-users' attitudes towards hookah-use.

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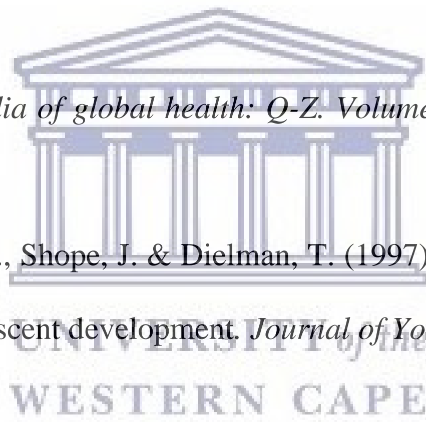
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APPENDIX A

Title: A comparison of the relationship between peer pressure and social acceptability between hookah-pipe users and non-users

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This survey is to assess tobacco use and peer pressure and acceptance of grade 9 adolescents related to peer pressure and social acceptability. Obtaining feedback from grade 9 learners will give insight to whether there is a relationship between peer pressure and social acceptability of hookah-pipe users and if there is a significant difference between hookah-pipe users and non-users regarding peer pressure and social acceptability. We would appreciate you taking the time to complete the following survey. It should take approximately 20-30 minutes to complete. Your responses are voluntarily and will be confidential. Responses will not be identified by individual. All responses will be compiled together and analysed as a group.

DEMOGRAPHIC INFORMATION						
INSTRUCTIONS: Please answer the following questions accurately. Select the correct answer where possible by marking with an **X**.						
Age						
Gender	MALE		FEMALE			
Language						
Race	White	Black African	Coloured		Indian/ Asian	
Grade						
Residential area						
With whom do you live?	Mother		Both parents			
	Father		Foster parents			
	Grandmother		Care givers			
	Grandfather		Both grandparents			
	Brother		Family members			
	Sister		Alone			
	Friend		None of the above			
Average school fees per year	R0- R3 000					
	R3 100- R10 000					
	R10 100- R20 000					
	Above R20 000					
Do you smoke cigarettes?	YES		NO			
In smoking cigarettes, are you a…	Non user	Very light user	Light user	Moderate user	Heavy user	Very heavy user

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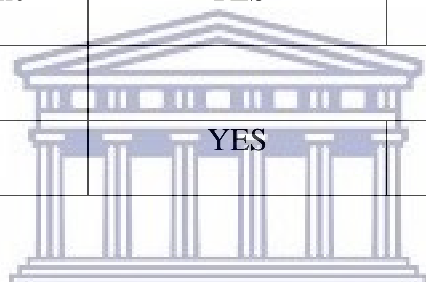
Have you smoked cigarettes in the last 6 months?	YES		NO			
At what age did you start smoking cigarettes?						
In smoking e-cigarette, are you a…	Non user	Very light user	Light user	Moderate user	Heavy user	Very heavy user
Do you use the e-cigarette as a replacement for cigarettes?	YES		NO			
Do you smoke hookah-pipe?	YES		NO			
In smoking hookah-pipe, are you a…	Non user	Very light user	Light user	Moderate user	Heavy user	Very heavy user
Have you smoked hookah-pipe in the last 6 months?	YES		NO			
At what age did you start smoking hookah-pipe?						
Do you use the hookah-pipe as replacement for cigarettes?	YES		NO			



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TOBACCO USE

INSTRUCTIONS: Please answer each question as accurately as possible by marking the correct answer in the space provided. **Please tick one box for each statement.**

ATTITUDES TOWARDS TOBACCO USE

	Questions	**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
1.	Hookah-pipe smokers are more popular.				
2.	Smoking helps people forget their worries.				
3.	Non-hookah smokers dislike being around hookah smokers.				
4.	Smokers find it hard to get dates.				
5.	Smokers are tough people.				
6.	Hookah- smoking is something you need to try before deciding to use it.				
7.	Smoking hookah makes people look more mature.				
8.	There is no harm in smoking hookah once in a while.				
9.	Smoking helps people relax.				
10.	Seeing someone smoke hookah turns me off.				
11.	Hookah smokers are often stressed.				
12.	Smoking hookah is attractive.				
13.	Smoking hookah makes people look sexy.				
14.	Non-hookah smokers should be proud to be smoke free.				

SMOKING BY FAMILY, FRIENDS AND TEACHERS

1. Which of the following people smoke hookah-pipe? **Please tick all that apply.**

Best friend	Mother
Other close friends	Other care givers (stepfather, stepmother etc.)
A teacher at school	Grandparents
Father	None of the above

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PARENTAL RULES AND MONITORING AROUND SMOKING HOOKAH-PIPE					
For each statement listed below, please indicate whether you agree or disagree with it. **Please tick <u>one</u> box for each statement.**					
Questions		**Strongly agree**	**Agree**	**Disagree**	**Strongly disagree**
1.	My parents/ care givers have set rules with me about not smoking hookah-pipe or tobacco.				
2.	My parents/ care givers generally know on what I spent my pocket money.				
3.	My parents/ care givers have rules about when I go out with my friends.				
4.	My parents/ care givers often have no idea where I am when I am away from home.				
5.	My parents/ care givers know about my school life *(e.g. my teachers, my grades).*				
6.	My parents/ care givers would be upset if I was caught smoking hookah-pipe or tobacco.				
7.	If I break any important rules that my parents or care givers have set, I always get into trouble.				

1= Strongly Agree 2= Agree 3= Disagree 4= Strongly Disagree

Adapted from the National Ash Year 10 Snapshot Survey, the 10 year in-depth survey, the health and lifestyle survey and peer pressure survey.

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PEER PRESSURE AND ACCEPTANCE				
INSTRUCTIONS: This section is about how much you go along with your friends. **Tick <u>one</u> box for each question.**				
PEER PRESSURE				
Questions		**Agree**	**Disagree**	**Maybe**
1.	I think it is more important to be myself than to fit in with the crowd.			
2.	I would do something that I know is wrong just to stay on my friend's good side.			
3.	I sometimes go along with my friends just to keep them happy.			
4.	It is pretty hard for my friends to get me to change my mind.			
5.	I would break the law if my friends said they would.			
6.	I always give my true opinion in front of my friends, even if I think they might make fun of me.			
7.	I take more risks when I am with my friends than I do when I am alone.			
8.	I act the same way when I am alone as I do when I am with my friends.			
9.	I sometimes say things I do not really believe, because I think it will make my friends respect me more.			

1= Agree   2= Disagree   3= Maybe

Adapted from the NICHD Study of Early Child Care and Youth Development (2005).

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SOCIAL ACCEPTABILITY			
INSTRUCTIONS: This set of questions is about how you respond to your beliefs vs. what others wants to hear from you. **Please choose TRUE or FALSE for each question.**			
Questions		**True**	**False**
1.	I never hesitate to go out of my way to help someone in trouble.		
2.	It is sometimes hard for me to go on with my work if I am not encouraged.		
3.	I have never intensely disliked anyone.		
4.	On occasions I have had doubts about my ability to succeed in life.		
5.	I sometimes feel resentful when I don’t get my way.		
6.	If I could get into a movie without paying and be sure I was not seen, I would probably do it.		
7.	I like to gossip at times.		
8.	There have been times when I felt like rebelling against people in authority even though I knew they were right.		
9.	No matter who I am talking to, I am always a good listener.		
10.	There have been occasions when I have taken advantage of someone.		
11.	I’m always willing to admit it when I make a mistake.		
12.	I always try to practice what I preach.		
13.	I sometimes try to get even rather than forgive and forget.		
14.	When I don’t know something I don’t mind at all admitting it.		
15.	I would never think of letting someone else be punished for their wrong-doings.		
16.	There have been times when I was quite jealous of the good fortune of others.		
17.	I have almost never felt the urge to tell someone off.		
18.	I am sometimes irritated by people who ask favours of me.		
19.	I sometimes think when people have a misfortune they only get what they deserve.		
20.	I have never deliberately said something that hurt someone’s feelings.		

1= True 2= False

Adapted from the Social Desirability Scale devised by Crowne and Marlow.

Thank you

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APPENDIX A

Titel: 'n Vergelyking van die verhouding tussen groepsdruk en sosiale aanvaarbaarheid tussen okka-pyp gebruikers en nie-gebruikers.

Hierdie opname is om die gebruik van tabak te evalueer en die groepsdruk en aanvaarding van Graad 9 adolessensie verwante aan groepsdruk en sosiale aanvaarbaarheid. Die terugvoering vanaf Graad 9 leerders sal insig gee of daar 'n verhouding is tussen groepsdruk en sosiale aanvaarbaarheid van okka-pyp gebruikers en of daar 'n verskil is tussen okka-pyp gebruikers en nie-gebruikers met betrekking tot groepsdruk en sosiale aanvaarbaarheid. U tyd sal waardeer word as u die volgende opname volledig sal voltooi. Hierdie opname sal ongeveer 20-30 minute vat om te voltooi. U terugvoering is vrywillig en konfidentieël. Terugvoering sal nie geïdentifiseer word nie. Alle terugvoering sal saamgestel en geanaliseer word as 'n groep.

DEMOGRAFIESE INFORMASIE						
INSTRUKSIES: Beantwoord asseblief die volgende vrae so akkuraat moontlik. Kies die regte antwoord waar moontlik deur met n **X** te merk.						
Ouderdom						
Geslag	MANLIK		VROULIK			
Huistaal						
Ras	Wit	Swart	Kleurling		Indiër/ Asiaties	
Graad						
Woongebied						
By wie is u woonagtig?	Moeder		Albei ouers			
	Vader		Pleegouers			
	Ouma		Versorgers			
	Oupa		Albei grootouers			
	Broer		Familie lede			
	Sister		Alleen			
	Vriend		Nie een van die bogenoemde			
Gemiddelde skoolfonds per jaar	R0- R3 000					
	R3 100- R10 000					
	R10 100- R20 000					
	Bo R20 000					
Rook jy sigarette?	JA		NEE			
As watter sigaret gebruiker klasifiseer jy jouself?	Nie gebruiker	Baie ligte gebruiker	Ligte gebruiker	Matige gebruiker	Swaar gebruiker	Baie swaar gebruiker

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Het jy 'n sigaret gerook in die laaste 6 maande?	JA		NEE			
Op watter ouderdom het jy begin sigaret rook?						
As watter e-sigaret gebruiker klasifiseer jy jouself?	Nie gebruiker	Baie ligte gebruiker	Ligte gebruiker	Matige gebruiker	Swaar gebruiker	Baie swaar gebruiker
Gebruik jy die e-sigaret as plaasvervanger vir sigarette?	JA		NEE			
Rook jy okka-pyp?	JA		NEE			
As watter okka-pyp gebruiker klasifiseer jy jouself?	Nie gebruiker	Baie ligte gebruiker	Ligte gebruiker	Matige gebruiker	Swaar gebruiker	Baie swaar gebruiker
Het jy 'n okka-pyp gerook in die laaste 6 maande?	JA		NEE			
Op watter ouderdom het jy begin sigaret rook?						
Gebruik jy die okka-pyp as plaasvervanger vir sigarette?	JA		NEE			

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TABAK GEBRUIK

INSTRUKSIES: Beantwoord asseblief die volgende vrae so akkuraat moontlik deur die regte antwoord te merk in die ruimte wat voorsien word. Merk asseblief **een** boks vir elke stelling

HOUDINGS TEENOOR TABAK GEBRUIK

	Vrae	**Stem sterk saam**	**Stem saam**	**Stem nie saam**	**Verskil sterk**
1.	Okka-pyp gebruikers is meer gewild.				
2.	Rook help mense om te vergeet van hul problem.				
3.	Nie okka-pyp gebruikers hou nie daarvan om rondom okka-pyp gebruikers te wees nie.				
4.	Rokers vind dit moeilik om op romantiese afsprake te gaan.				
5.	Rokers is sterk as mens.				
6.	Jy moet eers ‘n okka-pyp uit toets voor jy besluit om dit te gebruik.				
7.	Om okka-pyp te rook laat mense meer volwasse voorkom.				
8.	Daar is geen skade daarin om okka-pyp elke nou en dan te rook nie.				
9.	Rook help mense ontspan.				
10.	Om iemand te sien okka-pyp rook sit my af.				
11.	Okka-pyp gebruikers is gewoonlik gespanne.				
12.	Dit is ‘n lekker gevoel om okka-pyp te rook.				
13.	Om okka-pyp te rook laat iemand aantreklik lyk.				
14.	Nie okka-pyp gebruikers moet trots wees om nie te rook nie.				

ROOK DEUR FAMILIE, VRIENDE EN ONDERWYSERS

1. Wie van die volgende mense rook okka-pyp? **Merk asseblief AL die gepastes.**

Beste vriend/in	Moeder
Ander vriende	Ander versorgers (stiefpa, stiefma ens.)
‘n Onderwyser/es by die skool	Grootouers
Vader	Nie een van die bogenoemde

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OUERLIKE REëLS EN MONITERING RONDOM DIE ROOK VAN OKKA-PYP					
Vir elke stelling gelys onderaan, dui asseblief aan of jy saam stem of nie. **Merk asseblief een boks vir elke stelling.**					
Vrae		**Stem sterk saam**	**Stem saam**	**Stem nie saam**	**Verskil sterk**
1.	My ouers/ versorgers het vasgestelde reëls met my om nie okka-pyp of tabak te rook nie.				
2.	My ouers/ versorgers weet gewoonlik waarop ek my sakgeld spandeer.				
3.	My ouers/ versorgers het reëls oor wanneer ek saam met my vriende kan uitgaan.				
4.	My ouers/ versorgers het soms geen idee waar ek is as ek weg van die huis af is nie.				
5.	My ouers/ versorgers weet van my skool en aktiwiteite *(bv. my onderwyser/es, my uitslae ens.).*				
6.	My ouers/ versorgers sal ontsteld wees as hulle my betrap met 'n okka-pyp of tabak.				
7.	Ek kom altyd in die moeilikheid as ek 'n belangrike reël verbreek wat deur my ouers/ versorgers opgestel is.				

1= Stem sterk saam 2= Stem saam 3= Stem nie saam 4= Verskil sterk

Aangepas vanaf die Nasionale 'ASH' Jaar 10 momentopname, die 10 jaar in-diepte opname, die gesondheid en lewensstyl opname en groepsdruk opname.

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GROEPSDRUK EN AANVAARDING

INSTRUKSIES: Hierdie stel vrae handel oor hoe goed jy met jou vriende oor die weg kom. **Kies asseblief een antwoord vir elke vraag.**

GROEPSDRUK

	Vrae	**Stem saam**	**Stem nie saam**	**Stem dalk saam**
1.	Ek dink dit is belangrik om myself te wees as om in te pas by enige vriendekring.			
2.	Ek sal iets doen wat ek weet verkeerd is net om aan my vriende se goeie kant te bly.			
3.	Soms doen ek wat my vriende doen net om hulle gelukkig te hou.			
4.	Dit is redelik moeilik vir my vriende om my gedagtes te verander.			
5.	Ek sal die wette verbreek as my vriende sê dat hulle dieselfde sal doen.			
6.	Ek gee altyd my eerlike opinie voor my vriende, alhoewel ek dink/ weet dat hulle my sal spot.			
7.	Ek vat meer kanse as ek saam met my vriende is as wat ek kanse vat as ek alleen is.			
8.	Die manier hoe ek optree as ek alleen is, is dieselfde manier hoe ek optree as ek saam met my vriende is.			
9.	Soms sê ek dinge wat ek nie regtig glo nie, omdat ek dink my vriende sal my meer respekteer.			

1= Stem saam   2= Stem nie saam   3= Stem dalk saam

Aangepas vanaf die NICHD Studie vir Vroeë Kindersorg en Jeug Ontwikkeling (2005).

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SOSIALE AANVAARBAARHEID			
INSTRUKSIES: Hierdie stel vrae handel oor hoe jy reageer op dit waarin jy glo teen wat ander mense van jou wil hoor. **Kies asseblief WAAR of VALS vir elke vraag.**			
GROEPSDRUK			
Vrae		**Waar**	**Vals**
1.	Ek huiwer nooit om uit my pad te gaan om iemand anders te help wat in die moeilikheid is nie.		
2.	Dit is soms baie moeilik vir my om voort te gaan met my werk as ek nie aangemoedig is/ word nie.		
3.	Ek het nog nooit iemand intens afgekeer/ nie van gehou nie.		
4.	Op sekere geleenthede het ek getwyfel oor my vermoë om te slaag/ vorentoe te gaan in die lewe.		
5.	Ek voel soms gegrief as ek nie my sin kry nie.		
6.	As ek in ‘n fliek teater kon ingaan sonder om te betaal en verseker was dat niemand my gesien het nie, sou ek dit seker gedoen het.		
7.	Soms hou ek van skinder.		
8.	Daar was tye waar ek gevoel het om in opstand te wees teenoor mense in gesags posisies alhoewel ek geweet het hulle is reg.		
9.	Ek is ‘n goeie luisteraar, ongeag met wie ek praat.		
10.	Daar was al geleenthede waar ek iemand misbruik het.		
11.	Ek is altyd gewillig om te erken as ek ‘n fout begaan het.		
12.	Ek probeer altyd om dit wat ek uiter, uit te oefen in my daaglikse lewe *(practice what you preach).*		
13.	Soms probeer ek gelyk kom anders as om te vergewe en te vergeet.		
14.	As ek nie iets weet nie, huiwer ek nie om te erken dat ek dit nie weet nie.		
15.	Ek sal nooit daaraan dink dat iemand anders gestraf moet word vir hul verkeerde dade nie.		
16.	Daar was al geruime tye waar ek baie jaloers was op andere se geluk.		
17.	Ek voel amper nooit die nodigheid om iemand eenkant toe te stoot nie.		
18.	Ek voel soms geïriteerd deur mense wat vir my gunsies vra.		
19.	Soms dink ek dat as mense slegte geluk het, dat hulle net kry wat hulle toekom.		
20.	Ek het nog nooit doelbewus iets gesê aan iemand anders wat hul gevoelens sal seermaak nie.		

1= Waar 2= Onwaar

Aangepas vanaf die Sosiale Wenslikheids Skaal ontwikkel deur Crowne en Marlow

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APPENDIX B

INFORMATION SHEET FOR PARENTS

Project Title: A comparison of the relationship between peer pressure and social acceptability between hookah-pipe users and non-users

What is this study about?

This is a research project being conducted by Heidré Visman at the University of the Western Cape. We are inviting your child to voluntarily participate in this research project to provide us an understanding of the relationship between peer pressure and social acceptability, but more specifically about hookah-pipe users. The purpose of this research project is to determine the prevalence of peer pressure, social acceptability and smoking tobacco using the hookah-pipe among adolescents; establish the relationship between peer pressure and social acceptability of adolescent hookah-pipe users and non-users and comparing the relationship between peer pressure and social acceptability between adolescent hookah-pipe users and non-users.

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What will your child be asked to do if I give consent?

Your child will be asked to complete a questionnaire. This questionnaire will ask questions about the hookah pipe, self-acceptance and acceptance by peers: if your child has access to tobacco, their attitude towards tobacco use, parental rules and monitoring around smoking and smoking by family, friends and teachers and if your child has self-acceptance and if he/she does certain things in order for acceptance by peers. Completion of the questionnaire will be 20-30 minutes.

Would your child's participation in this study be kept confidential?

Your child's personal information will be kept confidential. To help protect your child's confidentiality, the information provided will be totally private; no names will be used so there are no way your child can be identified for participating in this study. The information will be anonymous and treated confidentially. This will be done by not adding your child's name in the

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report but rather using a pseudonym. If we write a report or article about this research project, your child's identity will be protected to the maximum extent possible. The reports will be kept in a locked cabinet and only the interviewer and the research supervisor will have access to this information. The research findings will not include any personal details.

What are the risks of this research?

Any research has risks. If your child feel challenged in any way by the questions being asked, we will refer your child for the necessary support or your child may choose not to participate or withdraw at any time during the data collection process. If at any time there is disclosure of any incidents of risks or harm in the peer group, we are legally compelled to report the information.

What are the benefits of this research?

The outcome of the study will be beneficial to health care practitioners, who provides services to individuals, families and communities through interventions, advocacy and support. Parents and family members may also benefit from this study. The outcome of the study may highlight that social services intervention is needed within families, meaning that adolescents and young adults smoking hookah relate with their peers and feel accepted due to the lack of support within the home environment. Psychological intervention may also be highlighted in the outcome of the study.

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Does your child have to be in this research and may he or she stop participating at any time?

Your child's participation in this research is completely voluntary. He or she may choose not to take part in the study. If your child decides to participate in this research study, he or she may stop participating at any time. If your child decide not to participate in this study or if your child stop participating at any time, he or she will not be penalised or lose any benefits to which they otherwise qualify.

Is any assistance available if your child is negatively affected by participating in this study?

Every effort has been taken to protect your child from any harm in this study. If however, your child may feel affected he or she can be referred to your nearest community resource for assistance.

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What if I have questions?

This research is being conducted by Heidre Visman, under the supervision of Professor Nicolette Roman in the Social Work Department at the University of the Western Cape. Should you have any questions regarding this study and your child's rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Head of Department:
Professor C. Schenck
University of the Western Cape
Private Bag X17
Bellville 7535
cschenck@uwc.ac.za

Dean of the Faculty of Community and Health Sciences:
Prof José Frantz
University of the Western Cape
Private Bag X17
Bellville 7535
chs-deansoffice@uwc.ac.za

This research has been approved by the University of the Western Cape's Senate Research Committee and Ethics Committee.

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APPENDIX B

INFORMASIE VIR OUERS

Projek Titel: 'n Vergelyking tussen die verhouding tussen groepsdruk en sosiale aanvaarbaarheid tussen okka-pyp gebruikers en nie-gebruikers.

Waaroor handel hierdie studie?

Hierdie is 'n navorsings projek wat deur Heidré Visman gedoen word by die Universiteit van die Wes-Kaap. Ons nooi u graag om vrywillig deel te neem in hierdie navorsings projek ten einde vir ons meer begrip te gee oor die verhouding tussen groepsdruk en sosiale aanvaarbaarheid, maar meer spesifiek oor okka-pyp gebruikers. Die doel van hierdie navorsings projek is om die gewildheid van groepsdruk, sosiale aanvaarbaarheid en tabak gebruik vas te stel, deur die gebruik van okka-pyp onder tieners; sosiale aanvaarbaarheid en tabak verbruik deur die gebruik van okka-pyp onder tieners; om die verhouding tussen groepsdruk en sosiale aanvaarbaarheid te bepaal deur die verbruik van tiener okka-pyp gebruikers en nie-gebruikers. Hierdie projek sal ook vergelyking tref tussen groepsdruk en sosiale aanvaarbaarheid van tiener okka-pyp gebruikers en nie-gebruikers asook om die verhouding tussen groepsdruk en sosiale aanvaarbaarheid te vergelyk van tiener okka-pyp gebruikers en nie-gebruikers

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Wat sal van my kind verwag word indien ek toestemming gee?

U kind sal gevra word om 'n vraelys te voltooi. Die vraelys sal vrae vra oor die okka-pyp, self-aanvaarding en aanvaarding deur mede vriende; het jou kind toegang tot tabak; houdings teenoor tabak gebruik; ouerlike reëls en monitering rondom rook; rook deur familie, vriende en onderwysers en ook of u kind self-aanvaarding en doen hy/sy sekere dinge om aanvaar te word deur vriende. Voltooiing van hierdie vraelys sal ongeveer 20-30 minute neem.

Sal u kind se deelname in hierdie studie privaat gehou word?

U kind se persoonlike informasie sal privaat gehou word. Om te help om u kind se privaatheid te beskerm, sal die voorsiende informasie konfidentieël gehou word; geen name sal genoem word nie en daar sal geen manier wees hoe jou kind geidentifiseer kan word nie. Die informasie sal anoniem

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bly en met vertroulikheid hanteer word. Hierdie sal gedoen word deur nie u kind se naam te gebruik nie, maar wel 'n skuilnaam. As daar 'n verslag of artikel oor hierdie navorsings projek geskryf word, sal u kind se identiteit tot sover moontlik beskerm word. Die verslae sal in 'n geslote kabinet gehou word en slegs die onderhoudsvoerder en navorsings toesighouer sal toegang tot hierdie verslae he. Die navorsing uitslae sal geen persoonlike inligting bevat nie.

Wat is die risiko's van hierdie navorsing?

Enige navorsing het risiko's. As u kind op enige manier uitgedaag voel deur die vrae wat gevra word, sal hy/sy na die nodige ondersteuning verwys word of mag kies om nie in hierdie navorsing deel te neem nie of hulself onttrek enige tyd gedurende die data versamelings proses. Die universiteit is geregtig daarop om regstappe te neem indien enige insidente van risiko of skade bekend gemaak word in die portuur groep tydens die navorsing.

Wat is die voordele van hierdie navorsing?

Die uitkoms van die studie sal tot voordeel wees vir gesondheids praktisyne, wat dienste lewer aan individuele, families en gemeenskappe deur intervensies, advokasie en ondersteuning. Ouers en familie lede kan ook baat vind uit hierdie studie. Die uitkoms van die studie mag aandui dat maatskaplike intervensie nodig is binne families, bedoelende dat tienders en jong volwassenes wat okka-pyp rook verband hou met hul portuur groepe en voel dus aanvaarding vanaf hierdie groepe as gevolg van 'n tekort aan ondersteuning tuis. Sielkundige intervensie kan ook uitgelig word in die uitkoms van hierdie studie.

Moet jou kind in hierdie studie deelneem en mag hy of sy teen enige tyd stop?

U kind se deelname in hierdie studie is totaal vrywillig. Hy of sy mag kies om nie deel te neem in hierdie studie nie. As hy of sy besluit om deel te neem in hierdie studie, mag hy of sy enige tyd ophou om deel te neem. As hy of sy besluit om nie deel te neem in hierdie studie nie of as hy of sy ophou om deel te neem in hierdie studie, sal hy of sy nie gestraf word of enige voordele verloor nie.

Is enige ondersteuning beskikbaar as jou kind negatief geaffekteer word deur deel te neem in hierdie studie?

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Elke poging is aangewend om jou te beskerm van enige skade in hierdie studie. As jy egter geaffekteer word, kan jy verwys word na jou naaste gemeenskaps-hulpbron vir hulp.

Wat as ek vrae het?

Hierdie navorsing word gedoen deur Heidre Visman, onder die supervisie van Professor Nicolette Roman in die Maatskaplike Departement te Universiteit van Wes-Kaap. Indien jy enige vrae het met betrekking tot hierdie studie en jou regte as 'n navorsings deelnemer of as jy bloot 'n probleem wil rapporteer, skakel gerus:

Departementshoof:
Professor C. Schenck
Universiteit van die Wes-Kaap
Privaat Sak X17
Bellville 7535
cschenck@uwc.ac.za

Dekaan- Fakulteit Gemeenskaps- en Gesondheids Wetenskap:
Prof José Frantz
Universiteit van Wes-Kaap
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chs-deansoffice@uwc.ac.za

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Hierdie navorsing was goedgekeur deur die Universiteit van die Wes-Kaap se Senaat Navorsings Komitee en Etiese Komitee.

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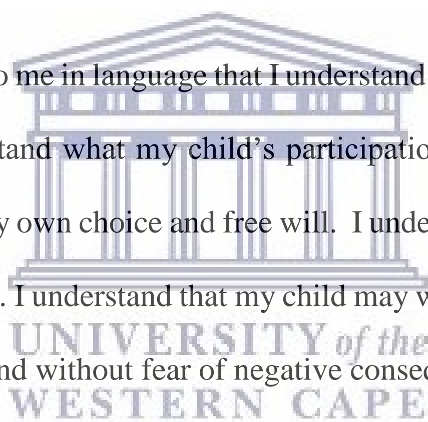
APPENDIX C

CONSENT FORM FOR PARENTS

Title of Research Project:

A COMPARISON OF THE RELATIONSHIP BETWEEN PEER PRESSURE AND SOCIAL ACCEPTABILITY BETWEEN HOOKAH-PIPE USERS AND NON-USERS



The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my child's participation will involve and I agree to have my child participate of my own choice and free will. I understand that my child's identity will not be disclosed to anyone. I understand that my child may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.

Parent's name……………………

Parent's signature……………………………….

Date………………………

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APPENDIX C

TOESTEMMING VORM OUERS

Titel van Navorsings Projek:
'n VERGELYKING VAN DIE VERHOUDING TUSSEN GROEPSDRUK EN SOSIALE AANVAARBAARHEID TUSSEN OKKA-GEBRUIKERS EN NIE-GEBRUIKERS.

Hierdie studie was verduidelik aan my in 'n taal wat ek verstaan. My vrae oor die studie was beantwoord. Ek verstaan wat my kind se deelname behels en ek stem saam dat my kind kan deel neem uit eie keuse en vrye wil. Ek verstaan dat my kind se identiteit nie bekend gemaak sal word aan enige persoon nie. Ek verstaan dat my kind op enige tyd gedurende hierdie studie himself of haarself kan onttrek sonder om enige rede te strek en sonder die vrees van negatiewe gevolge of verlies van voordele.

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Ouer se naam: ………………………..

Ouer se handtekening: ……………………………….

Datum: ………………………

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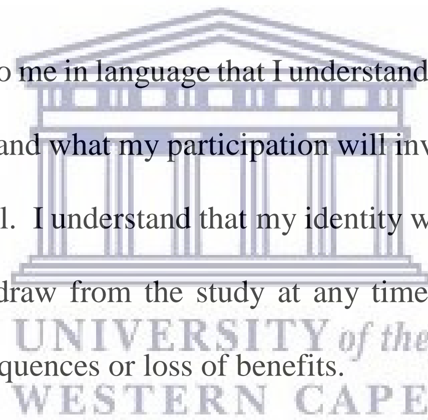
APPENDIX D

CONSENT FORM FOR PARTICIPANTS

Title of Research Project:

A COMPARISON OF THE RELATIONSHIP BETWEEN PEER PRESSURE AND SOCIAL ACCEPTABILITY BETWEEN HOOKAH-PIPE USERS AND NON-USERS

The study has been described to me in language that I understand. My questions about the study have been answered. I understand what my participation will involve and I agree to participate of my own choice and free will. I understand that my identity will not be disclosed to anyone. I understand that I may withdraw from the study at any time without giving a reason and without fear of negative consequences or loss of benefits.



Participant's name………………………..

Participant's signature……………………………….

Date………………………

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APPENDIX D

TOESTEMMING VORM VIR DEELNEMERS

Titel van projek:
'N VERGELYKING VAN DIE VERHOUDING TUSSEN GROEPSDRUK EN SOSIALE AANVAARBAARHEID TUSSEN OKKA-GEBRUIKERS EN NIE-GEBRUIKERS

Hierdie studie was verduidelik aan my in 'n taal wat ek verstaan. My vrae oor die studie was beantwoord. Ek verstaan wat my deelname behels en ek stem saam om deel te neem uit eie keuse en vrye wil. Ek verstaan dat my identiteit nie bekend gemaak sal word aan enige persoon nie. Ek verstaan dat ek op enige tyd gedurende hierdie studie myself kan onttrek sonder om enige rede te strek en sonder die vrees van negatiewe gevolge of verlies van voordele.

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Deelnemer naam: ………………………..

Deelnemer Handtekening: ……………………………….

Datum: ………………………

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