

# **A Marketing Perspective of Tobacco Consumption Among Adolescent Consumers: A Conceptual Model of Adolescents' Smoking Behaviour**

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## **ABSTRACT**

Adolescents, as tobacco consumers, have been the subject of constant interest and research worldwide. Scientific research, both empirical and conceptual, provides clear insight about the dangers and the environmental factors associated with tobacco smoking among adolescents across the world. This paper is an attempt to contribute to existing knowledge by proposing a conceptual model, which would contribute to our understanding of how various environmental influencers are associated directly and indirectly with adolescents' smoking behavior. Specifically, this study attempts to close the gap in literature by closely re-examining the effect of parental style, particularly adolescents characterized by a religiously-oriented family communication pattern at home and its potential association with smoking behaviour. Previous studies have only

explored the direct interpersonal relationship of parental style as part of the environmental factors shaping smoking behavior among adolescents, and by so doing have described the process of smoking behavior among adolescents. To date however, studies have not explored the interpersonal communication patterns that takes place between parents and their child in detail, and importantly the possible indirect relationship that exist between parental style and adolescents' smoking behaviour. Following extensive review of literature, this study proposes a conceptual model in which adolescents attitudes towards smoking is considered as a mediating variable in the relationship between parental style, and adolescents' smoking behaviour. It also re-examine other environmental factors, advertising influences, and its association with adolescents' smoking behaviour. Based on extensive review of literature, adolescents' attitudes towards smoking is proposed as a possible mediating variable in the relationship between advertising influences and adolescents' smoking behaviour. Finally, this study develops a set of propositions on the basis of theory research, and provides a concluding remark for future research.

**Key Words:** *Parental Style, Religiously-oriented family communication, Advertising Influences, Adolescents' Attitude towards smoking, Adolescents' Smoking Behaviour.*

## **1.0 INTRODUCTION**

Health is a big concern for our society. Cigarette smoking is a major health concern in most societies, because the diseases and deaths that result from it are in fact preventable (Bindah and Othman, 2011; Gray and Donatelle, 1990). While it is known that cigarettes are harmful and highly addictive, adolescents start smoking every day.

Since most adults start smoking as adolescents, it would be very beneficial to try to prevent adolescents from smoking in order to prevent health problems later in life. Although many policies are being implemented by the government to curb the smoking habits in most societies, report indicates that consumption of tobacco continuously increases drastically (Bindah and Othman, 2011). The World Health Organization (WHO) estimates that the global death toll from smoking will double to 10 million in 2030 if the increase in the use of tobacco continues unabated. Given the magnitude of the smoking problem in developing nations, research is needed to better understand the factors that promote smoking behavior in these specific countries. Based on evidence from prior empirical studies, the objective of this paper is to propose an integrated model in which parental style and its influence on adolescents' smoking behaviour is explored. Specifically, this paper is an attempt to examine the role of adolescents who are characterized by a religiously-oriented family communication at home, and its potential effect on adolescents' smoking behaviour. In consumer socialization research, adolescents' communication with parents at home, has consistently been measured by three dimensions; socio-oriented family communication, concept-oriented family communication, and recently young adults' characterized by a religiously-oriented family communication at home has been examined in the context of the development of values (see Bindah and Othman, 2012).

This study attempts to examine the potential influence of adolescents who are specifically characterized by a religiously-oriented family communication at home and their smoking behaviour. Previous studies have examined religiosity and its effect on adolescents' smoking behaviour in a different context (e.g., in profiling the demographics

of subjects and the association with adolescents' smoking behaviour) but have not fully explore the implication of family communication and its potential effect on adolescents' smoking behaviour. This conceptual paper also propose an integrated model in which attitude towards smoking is considered as mediating variable in the relationship between specific parental style, i.e., religiously-oriented family communication patterns and adolescents smoking behaviour. And lastly, in this integrated model of adolescents' smoking behaviour, attitude towards smoking is proposed as a mediating variable in the relationship between advertising influences and adolescents' smoking behaviour.

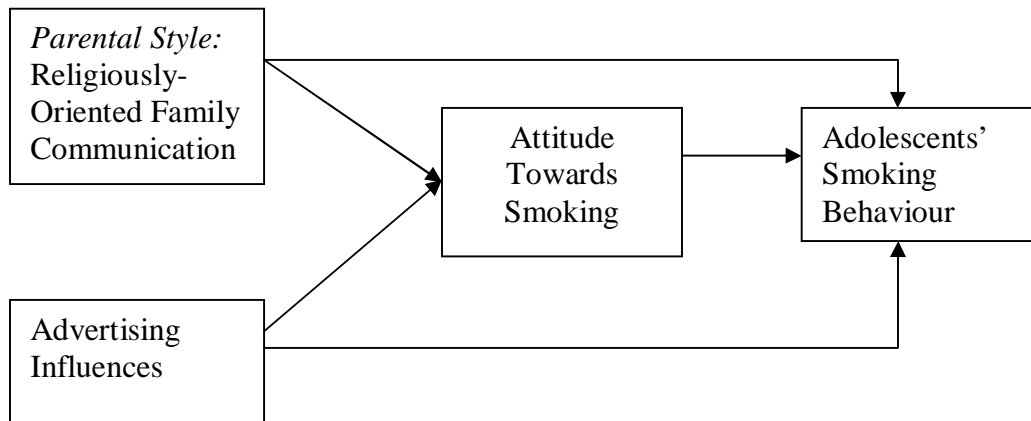
On these bases, the following research questions for this study are addressed;

1. Do adolescents, characterized by a specific parental style at home, have an association with their smoking behaviour?
2. Does advertising influences adolescents' smoking behaviour?
3. Is adolescents' attitude towards smoking associated with their smoking behaviour?
4. Does adolescents' attitude towards smoking mediates the relationship between specific parental style and adolescents' smoking behaviour?
5. Does adolescents' attitude towards smoking mediates the relationship advertising influences and adolescents' smoking behaviour?

## **2.0 LITERATURE REVIEW**

Social Learning Theory Bandura's (1977) has been used often in smoking behaviour research. *Social learning theory* views behaviours as a result of the dynamic, reciprocal relationship between personal factors and social environmental influences. The key concepts in social learning theory include behavioural capability, expectancies, observational learning, reinforcements, self-efficacy, and reciprocal determinism. This theory assumed that behaviours learned by individuals are based on what they see and learn from people close to them, such as their parents, friends, and siblings. According to this theory, a child who looks up to an older sibling who is a smoker is more likely to start smoking as well, as long as she or he has the self-efficacy to do it. The way this theory has been commonly tested in research is by asking respondents about the smoking history of people close to them, whether they view smoking as socially desirable, and whether they have the access and ability to smoke. Skinner (1953) developed the learning theories, which stated that complex behaviour is learned gradually through the modification of simpler behaviours. Imitation and reinforcement play important roles in these theories, which stated that individuals learn by duplicating behaviours they observe in others and that rewards are essential to ensuring the repetition of desirable behaviour (Ajzen, 1985). As each simple behaviour is established through imitation and subsequent reinforcement, the complex behaviour develops. When verbal behaviour is established the organism can learn through rule governed behaviour and thus not all action needs to be contingency shaped. Skinner (1953) was one of the first psychologists to recognize the critical role of imitation (what he termed "echoic behaviour") in the learning of language. Behaviour analytic theories of change have been quite effective in improving the human condition (Ajzen, 1985). A more recent theory on human relationships and behaviour is

the relational models theory (Fiske, 1991). Relational models theory asserts that humans are social beings and that they relate to each other in four different ways—through (1) communal sharing, (2) authority ranking, (3) equality matching, or (4) market pricing. Communal sharing is a relationship whereby people within a group treat each other as "equivalent" and "undifferentiated", authority ranking is an hierarchical type of relationship, whereby individuals place themselves according to a ranking against each other in a social dimension. When relationships are built on "one-for-one correspondence", "in-kind reciprocity", "egalitarian distributive justice", "eye-for-an-eye revenge", or "equal replacement for compensation", they are considered manifestations of an equality matching type of relationship. Finally, market pricing is a relationship built on proportionality or ratios of a single value or utility metric system. More specifically, in this type of relationship, individuals analyze the social value of both quantitative and qualitative factors based on socially meaningful ratios. These four relational models are innate among humans, and their implementations are based on culture. The theory has not been used much in health behaviour research. Its utility is more about describing relationships, and to some extent how relationship can affect behaviour. Nevertheless, this theory is useful in understanding how health-risk behaviours like smoking may form. For example, an individual who smokes because an authoritative figure (e.g., parent or peer) she looks up to also smokes may be a manifestation of an authority ranking relationship. Unlike social learning theory, the strength of relational models theory is that it is able to explain the relational dynamics that lead one to smoke. Moreover, unlike social network theory, it views each relationship independently, thus, family relationships or any other forms of relationship are considered.



**Figure 1. Proposed Conceptual Model of Adolescents' Smoking Behaviour**

### **2.1 Attitudes Towards Smoking And Adolescent Smoking Behaviour**

Radhakrishna, *et al.* (1997) conducted a study to determine the extent of cigarette use among 7th, 9th and 12th graders in six counties of Pennsylvania. It was reported that smokers more likely than non-smokers to agree that: a) it was OK to sell tobacco products to minors; b) don't mind being around people who smoked; c) smoking helped people to relax; and d) they would probably smoke cigarettes when they became adults. In another study, Nardini, *et al.* (1998) aimed to determine: 1) the prevalence of tobacco smoking among chest physicians, the influence of the personal smoking habit on clinical practice and what training about tobacco related issues (TI) doctors received in medical school. It was found that a significantly higher proportion of smokers than nonsmokers believe that the dangers of smoking were currently overestimated and that air pollution damaged health more than tobacco smoke. A similar difference was detectable in their opinions about passive smoking. In a study by Engels, *et al.* (1999) which aimed to assess how far associations between possible explanatory variables and smoking onset depended

on the use of cross-sectional versus prospective design, it was found that those with positive attitudes to smoking and lower self-confidence in resisting pressures to smoke were more likely to smoke.

Sandos, *et al.* (2003) have examined the smoking prevalence, the associations of known smoking risk factors, religious and cultural influences with adolescents' susceptibility to smoking and experimentation with cigarettes among the ethnic group of Muslim Arab-American adolescents, in an Islamic Academy in Fairfax County, Virginia. The main effects of positive beliefs about smoking were significantly associated with a greater risk of susceptibility to smoking for both genders, while the main effect of perceived negative consequences was significantly associated with a decreased risk of susceptibility to smoking for both genders. Higgins, *et al.* (2003) have examined the power of the Theory of Planned Behavior (TPB) to predict smoking intentions and smoking behaviour. It was found that intentions not to smoke were best predicted by holding negative attitudes towards smoking and perceiving control over not smoking. Wilkinson (2004) have examined the predictive utility of the following correlates of adolescent smoking intention, PBC (for smoking and smoking-related skills), attitudes, subjective norms, descriptive norms and prevalence estimates, parenting style, neuroticism, extraversion, conscientiousness, self-esteem, Socio Economic Status, personal income, sex, and past behaviour. More positive attitude towards smoking directly 'predicted' higher intentions to smoke. The path analysis indicated that positive attitude towards smoking was predicted by lower parental control and lower parental support.



Ayatollahi, et al. (2005) examined the effects of socio-environmental and personal factors on three stages of the smoking continuum among a sample of 10th-grade male students, ages 14–19 years, at 20 high schools in Iran. The discriminant function analysis indicated that attitude toward smoking, were related to more intense smoking behaviors. Forrester, et al. (2007) conducted a study to identify variables that predicted the initiation of smoking among adolescents, and the development of susceptibility to smoking, over a 2-year period. Relaxed parental attitudes towards youth smoking predicted increased susceptibility. Raptou, et al. (2009) investigated smoker's profile by addressing the determinants of cigarette demand and providing a circumstantial exposition of the psychosocial characteristics that differentiate smoking patterns. Perceived negative consequences of smoking was negatively associated with smoking participation. Individuals who were aware of the negative impacts of the smoking habit were less likely to smoke, by 18.69 percent. For all that, in the case of established smokers, information on and familiarity with the negative consequences of smoking do not affect cigarette consumption.

Recently, Awaisu, et al. (2010) conducted a study which aimed to document the prevalence of smoking among newly diagnosed TB patients and to learn about the tobacco use knowledge and attitudes of those who are smokers among Malaysian population. The tobacco use attitudes of the study population were evaluated using an 18-item scale. Notably about two-thirds believed that smoking was fun (65.1%) and a similar proportion believed that it calms nerves (61.3%). Many respondents (70.1%) also agreed or strongly agreed that smoking make them relieved all life stresses. However, an overwhelming proportion of the patients agreed or strongly agreed that: smoking is a

waste of money (87.5%); tobacco use is very dangerous to health (91.3%) and; smokers are more likely to die from heart disease when compared with non-smokers (81.3%). In addition, the vast majority had a positive attitude that: sales of cigarettes should be outlawed (91.3%), people below the age of 18 years should be restricted from purchasing cigarettes (95.1%), and smoking should be allowed at fewer places than it were (63.8%). Conversely, many respondents were neutral on the point that smoking keeps ones weight down (41.3%) and the belief that it gives confidence (45.0%).

## **2.2 The Relationship Between Parental Style and Adolescents' Smoking Behaviour**

Studies on environmental factors, particularly the influences of parents on adolescents' smoking behaviour are many and varied. Chassin, et al. (1984) conducted a study among 2,670 adolescents from 7<sup>th</sup>-12<sup>th</sup> graders in the U.S. The major goal of the paper was to examine the acquisition of cigarette smoking within the context of normal social development in adolescence. With regards to parental strictness, it was found that for younger adolescents (initial 6<sup>th</sup> and 7<sup>th</sup> graders), perceived parental strictness increased over the year, whereas for older adolescents (9<sup>th</sup>-11<sup>th</sup> graders), parental strictness declined from Time 1 to Time 2. In addition, parental supportiveness varied with sex, with girls perceiving higher levels of parent support than boys (means of 3.61 vs.3.13). Girls reported higher levels of parental support than boys in all but the youngest grade; Increased involvement with smoking was associated with less reported parental support,  $p < .0001$ . In the study, adolescents who moved from Trier to Regular Smoker showed the only significant decreased in parental supportiveness (mean of .27).

In Griesler, et al. (2002) study, the sample included 1,537 mother–child dyads from the National Longitudinal Survey of Youth in the U.S. The study was conducted to identify and compare predictors of adolescent smoking initiation and persistence among African American, Hispanic and White adolescents in a longitudinal national sample. On eight of the sixteen characteristics (besides gender and ethnicity), inconsistent smokers were similar to or had scores reflecting greater risk than consistent smokers and low positive parenting inconsistent smokers were classified as smokers and included in the persistence analysis. African American mothers and children reported less positive parenting than Whites. At a low level of positive parenting, White youths were over twice as likely as minority youths to initiate smoking, while at a high level there were no ethnic differences. Wilkinson (2004) sample included 225 adolescents aged 13 to 14-year-olds in the U.K. Among others, the study examined the predictive utility of the following correlates of adolescent smoking: intention, attitudes, subjective norms, descriptive norms and prevalence estimates, parenting style, neuroticism, extraversion, conscientiousness, self-esteem, socio-economic status, personal income, sex, and past behaviour. The result indicated that those lost to follow-up were more likely to report stronger intentions to smoke in the next six months and lower parental control ( $p < .01$ ). The strongest correlates included past behaviour (i.e., perceived parental control,  $r = .37$ ,  $p < .001$ ). The path analysis indicated that positive attitude towards smoking was predicted by lower parental control ( $p < .01$ ); lower parental support ( $p < .05$ ).

Grenard, et al. (2006) sampled school students ( $N=511,583$ ) and their parents from the China Seven Cities Study, Northeastern, (Harbin, Shenyang), central (Wuhan), southwestern, (Chengdu, Kunming), and coastal (Hangzhou, Qingdao); Students' ages

ranged from 12 to 17 years. The study examined multiple influences on the use of tobacco by adolescents in China. The multilevel analyses on the total sample demonstrated that past-30-day smoking 1 year later was statistically significantly related to an ultimate variable (parental monitoring,  $p < .001$ ). Higher levels of parental monitoring were associated with a lower prevalence of smoking among the students. For the females, only an ultimate variable (parental monitoring,  $p < .002$ ) predicted past-30-day smoking among the interpersonal influences.

Droomers, et al. (2005) sample of 947 adolescents in New Zealand, investigated the relationship among father's occupational group, daily smoking, and smoking determinants in a cohort of New Zealand adolescents. It was found that several social factors having low attachment to parents- significantly predicted daily smoking during adolescence. In another study, Forrester, et al. (2007) objective was to identify variables that predict the initiation of smoking among adolescents, and the development of susceptibility to smoking, over a 2-year period. In terms of parental monitoring, both lower parental monitoring and relaxed parental attitudes toward youth smoking predicted increased susceptibility to smoke among adolescents.

Nowlin, et al. (2007) have examined cross-sectionally and longitudinally how ethnicity moderated the relationship between parenting and adolescent cigarette use, and how this moderating effect varied across levels of community risk. The result indicated that quality of parenting and parental control entered into a statistically significant two way interaction with ethnicity to predict frequency of smoking. A simple slope analysis found that a high quality of mother-child relationship was associated with a lower frequency of cigarette use for both Black and White adolescents; however, the

relationship was stronger for White adolescents. The interactions between parental control and ethnicity showed that, for White adolescents, a high level of parental control was associated with a lower frequency and quantity of cigarette use. Parental control was unrelated to cigarette use for Black adolescents. Maternal involvement was however, related to a decrease in the quantity of cigarettes smoked. A similar main effect was observed between quality of the mother-child relationship and quantity of cigarette use. High levels of paternal involvement were negatively related to quantity of cigarette use in low-poverty but not in high-poverty area; and a high-quality father-child relationship was associated with low quantity and frequency of smoking for both Black and White adolescents. In both outcomes, this relationship was stronger for White adolescents

Wislon, et al. (2007) have examined parent closeness and its effect in predicting youth smoking when 0, 1, or 2 parents smoked. In terms of parental style, those living with at least one smoking parent, those reporting being "not close" to parents, never spending time with parents, to be uncomfortable communicating with parents or to report never eating dinner with parents were significantly more likely to be smokers than nonsmokers ( $p < 0.001$ ). Overall, the results showed that across all closeness variables, both students who were close to their parents had lower odds of smoking. When the interaction term was significant, odds of youth smoking increased incrementally with each additional parent who smoked, indicating that the protective effect of being close to one's parents on smoking is modified when parents smoke. In other words, maintaining a close relationship with teens may be important in helping to prevent them from smoking; Parental smoking, however, was a significant moderator of youth smoking status and "time spent with parents" and "communication with parents"

### **2.2.1 The Relationship Between Parental Style and Family Communication**

The degree of influence that a child has in purchasing is directly related to patterns of interaction and communication within the family (Carlson and Grossbart, 1988; Rose, 1999). Research on family communication, has linked the type or quality of communication to a variety of parental practices and consumer competencies in children. Family communication provides a foundation for children's approach to interact with the marketplace (Moschis,1985), is inextricably linked to parental approaches to child-rearing (Carlson and Grossbart, 1988; Rose, 1999), and influences the development of children's consumer skills, knowledge, and importantly their attitudes (Moschis, 1985).

Several studies of consumer socialization have utilized these dimensions to create a four-category typology of family communication (Carlson, et al., 1990; Moschis and Moore, 1979). Pluralistic parents (low socio-orientation, high concept -orientation) encourage their children to engage in overt communication and discussions. This communication pattern results in children that possess independent perspectives and become skilled consumers. Consensual parents (high socio-orientation, high concept-orientation) encourage children to formulate independent ideas, but maintain a hierarchy of power within the family and control and monitor their children's consumption environment. Laissez-faire parents (low socio-orientation, low concept-orientation) can be characterized as having low levels of parent-child communication in general. Children in this type of environment are more influenced by external socialization agents such as the media and peers. Finally, protective parents (high socio-orientation, low concept-orientation) emphasize obedience. They promote vertical relationships with their

children, focus less on issue-oriented communication, and tightly control and monitor their children's consumption (Moschis, 1985).

Nyi Nyi and Zulkifli (2001) sampled 180 male teachers and trainee teachers from four secondary schools in Kelantan and a Teachers' Training College. Their study was aimed to explore the factors related to smoking habits among secondary school male teachers and trainee teachers and their perception of hazards of smoking on health. Their results indicated a significant association between smoking status of teachers and their fathers' ( $p < 0.05$ ). The perception of the hazards of smoking on health was significantly different between smokers and nonsmokers ( $p < 0.05$ ). Although the study, did not specifically examine religious communication at home, generally it indicated that religious belief prevented nonsmokers from smoking.

Sandos, et al. (2003) sampled ( $N=480$ ) 7<sup>th</sup> to 12<sup>th</sup> grade students in Fairfax County, Virginia, during the 1998–99 school year in the U.S. The age of the students ranged from 12 to 19 years. The study examined the smoking prevalence, the associations of known smoking risk factors, religious and cultural influences with adolescents' susceptibility to smoking and experimentation with cigarettes among the ethnic group of Muslim Arab-American adolescents, in an Islamic Academy in Fairfax County, Virginia. In the study, religious influence and perceived negative consequences of smoking were protective against ever smoking for both genders. Culturally based gender-specific norms were significantly associated with increased risk of susceptibility to smoking for males only, while religious influence was protective against susceptibility to smoking for females. Religious advice ( $\beta = -0.323$ ,  $p = 0.008$ ) were significantly associated with a

decreased risk of ever smoking. Religious influence was a protective factor against susceptibility to smoking for girls (beta=-0.59, p=0.002) but not for boys (p=0.05).

Nyi Nyi, et al. (2004) conducted a study with a sample of 451 upper secondary male students from day, boarding and vocational schools in Malaysia. The mean age of subjects was 16.46 year. A cross-sectional study was conducted to identify the factors related to smoking habits of adolescents among secondary school boys. Their results indicated that nonsmokers most often cited religion, parents' influence, as factors preventing them from smoking. In Raptou, et al. (2009) study, 680 usable questionnaires were collected, in northern Greece. Their study article investigated smoker's profile by addressing the determinants of cigarette demand and providing a circumstantial exposition of the psychosocial characteristics that differentiate smoking patterns. The result indicated that the variable that described attachment to religion was statistically significant. Individuals with a stronger attachment to religion were less likely to smoke, by 34%, and in case they smoke, the probability for light smoking increases by 17%.

To summarize, there appears to be reasonably good supportive evidence that adolescents who tend to have a positive attitudes towards smoking will influence on their smoking behavior. . This leads to the following proposition:

**P1a.** Adolescent with a negative attitude towards smoking are more likely to have a negative behaviour towards smoking.

**P1b.** Adolescent with a positive attitude towards smoking are more likely to have a positive behaviour towards smoking.

**P2a.** There is a relationship between adolescents who are characterized by a religiously-oriented family communication at home, and their smoking behaviour



**P2b.** Adolescents who are characterized by a religiously-oriented family communication at home, tend to have a negative attitudes towards smoking, which in turn leads to a negative behaviour towards smoking.

### **2.3 The Relationship Between Advertising Influences And Adolescent Smoking Behaviour**

Smith and Stutts (1999) surveyed 246 adolescents from junior and high school in U.S. In the study, the hypothesis that adolescents who smoked were more likely to have been exposed to cigarette advertisement was neither supported for any grade level nor for all students combined. The findings suggested that most respondents agreed that they have been exposed to cigarette advertising. The hypothesis which stated that adolescents who smoked were more likely to pay attention to cigarette advertisement was supported for junior high/middle school students. Regular smokers were more likely to pay attention to cigarette advertisement than non-smokers. Another hypothesis which stated that adolescents who smoked were more likely to be familiar with characters in cigarette advertisement and cigarette brand names (familiarity with cigarette characters and brands), was supported only for all students combined. For cigarette and bands, regular smokers were significantly more familiar than non-smokers. In another study by Biener, et al. (2000) in Massachusetts among U.S adolescents (n = 529), the effect of tobacco marketing on progression to established smoking was examined. The findings indicated that adolescents who, at baseline, owned a tobacco promotional item and named a brand whose advertisements attracted their attention were more than twice as likely to become established smokers (odds ratio = 2.70) than adolescents who did neither.

A study by Gritz, et al. (2003) described the results of a longitudinal study of the natural course of smoking initiation among a school-based, ethnically diverse sample of adolescents. The study consisted of 1,004 students in the U.S. in 5<sup>th</sup>, 8<sup>th</sup> and 12<sup>th</sup> grades. The results indicated that factors associated with an increased risk of susceptibility to smoking included exposure to pro-and anti-tobacco messages. Exposure to pro-tobacco media messages was a risk factor among White and African American students but not among Hispanic students. Having been exposed to pro-tobacco messages emerged as a significant risk factor among White students. In South East Asia, Malaysia,

Nyi Nyi, et al. (2004) sampled 451 upper secondary male students from day, boarding and vocational schools in Kelantan state. In the study, the mean age of subjects was 16.46 year. The cross-sectional study was conducted to identify the factors related to smoking habits of adolescents among secondary school boys in Kelantan state, Malaysia. In the study, mass media was cited as the best source of information about smoking hazards, followed by medical personnel.

In Turkey, Kutlu, et al. (2005) examined 613 ex-smoker university students, from 17 different faculties to evaluate the prevalence, knowledge, and attitudes of ex-smokers at a university in Konya, Turkey. The results of their study indicated that in the majority of participants (40.6 %), there was a negative opinion that TV programs on smoking-cessation were ineffective. The majority of participants (56.7%) believed that effective TV programmes related to the harmful effects of smoking were lacking, and approximately 88.8% of ex-smokers watched TV programmes related to smoking.

Tickle, et al. (2006) surveyed 4,969 participants from 30 middle schools in New Hampshire, U.S. The research examined the role of movie portrayals of smoking as well

as peer, parent, and sibling smoking as predictors of intentions to smoke and smoking behavior in adolescents. In the cross-sectional model, media exposure to smoking was associated with increased identification with smokers, which was associated with higher intentions to smoke. This supported the hypothesis that adolescents who were exposed to people who smoked were more likely to identify with smokers, and identification was related to smoking intentions. As hypothesized, media exposure to smoking was associated with increased endorsement of positive expectancies about smoking, which was related to intentions to smoke. Media exposure to smoking was related to intentions to smoke through its association with increased positive expectancies about smoking and increased identification as a smoker.

In the U.S. Reardon and Miller (2008) examined a sample consisting of 617 respondents, aged 14 to 18. The research examined the relative impact of intensity of the message, valence of the message, and intended recipient (i.e., self versus other) of the consequences conveyed in the message on adolescents' attitudes toward an ad and intent to smoke. The results indicated that relative intensity of an ad message had no significant effect on attitude toward an ad or intent to smoke. However, positive ads were better received than negative ones, in terms of both attitude toward the ad and intent to smoke. Finally, ads that emphasized personal consequences were more likely to evoke positive responses than those that emphasized social consequences, again in terms of both attitude toward the ad and intent to smoke.

In northern Greece, Raptou et al. (2009) collected 680 usable questionnaires to examine circumstantial exposition of the psychosocial characteristics that differentiate smoking patterns. In the study, cigarette advertising seemed to be positively associated

with the decision to smoke, but did not affect the quantity of cigarettes consumed. Individuals influenced by cigarette advertising were more likely to smoke, by 16.5%. Furthermore, perceived positive consequences of smoking were positively associated with smoking patterns, according to the results of both equations applied. Individuals who believed that smoking helped them to relax or feel more comfortable in social events were more vulnerable to smoking and consumed more cigarettes on average.

To summarize, there appears to be reasonably good supportive evidence that adolescents who tend to have a positive attitudes towards smoking will influence on their smoking behavior. This leads to the following propositions:

**P3a.** There is a relationship between advertising influences, and adolescent's smoking behaviour

**P3b.** Adolescents who are positively influenced by advertising messages tend to have a positive attitude towards smoking, which in turn leads to a positive behaviour towards smoking.

### **3.0 CONCLUSION AND DIRECTION FOR FUTURE RESEARCH**

The information presented in this article suggests some generalizations supported by reasonably adequate evidence and others which are more speculative and require additional research. Parental smoking behaviour appear to play an important role in adolescents smoking behavior, and they are instrumental in influencing adolescents consumption of tobacco.

Youngsters appear to acquire a variety of other consumption-related orientations skills, from their parents. Apparently, different behavioral processes are involved in the

direct transmission of specific behaviors from parent to child, and these processes vary by socio-demographic characteristics. Parental style lead to rather different interaction patterns with other sources of consumer learning and development of specific behaviors among adolescents.

Several avenues for future research are possible. There is a need for better understanding of the nature of parental influences and its implications on adolescents' smoking behaviour. We need to understand the communication processes involved in the transmission and acquisition of certain behaviors from parent to child, and how these vary by socio-demographic characteristics. The research reviewed here suggests that parental influences have been examined in the context of how parents affect the development of adolescents' tobacco consumption. It would also be useful to examine the behavioral effects of adolescents' tobacco consumption when one parent's smoking behavior with the child is quite different from that of the other parent.

Much of the research needed in this area can only be addressed using certain research designs. Experimental and longitudinal designs could enable the researcher to better study such processes and their effects. In summary, this article has attempted to present an update on the present knowledge and research on the role of parental and advertising influence, as well as adolescents' attitudes towards smoking on adolescents' smoking behaviour. It has also attempted to integrate much of the information in the area and has presented propositions to guide future research and theory development.

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