

## **The Role of Gender, Self-Efficacy, Age and Extroversion on Smoking Behaviour among Ambrose Alli University Students, Ekpoma, Nigeria**

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### **Abstract**

This study examined the role of gender, self-efficacy, age and extroversion on smoking behavior among Ambrose Alli University Students. Two hundred and fifty (250) undergraduates participated in the study (males 160 and females 90). Questionnaire was used in collecting data that were analyzed in this study. The questionnaire consisted of 4 sections: the demographic variables, extroversion scale, self-efficacy scale and attitude toward smoking scale. Two out of the four hypotheses tested were supported. Results of the independent t-test indicated that there was a significant difference in the onset of smoking between females and males ( $t = 2.354$ ,  $df = 248$ ,  $P = <.05$ ). Result also showed that self-efficacy was significant when considering attitudes toward smoking behavior ( $t = 3.256$ ,  $df = 248$ ,  $P = <.05$ ). However, age and extroversion was not found to be significant while considering smoking initiation and cessation. Based on the findings of this study it was recommended that the smokers' self-efficacy and gender must be taken seriously while considering smoking cessation. It also has implication for counseling.

*Keywords:* gender and smoking, Nigeria, university students

### **Introduction**

Smoking among adults has been said to decline sharply, while a significant number of adolescents continue to adopt smoking as a habit (Thorndike, Rigotti, Safford & Singer, 1998). Research has identified some factors that may be important for the onset of smoking: Such factors include the followings, curiosity, the use of tobacco by parents, siblings and peer group pressure, personality variables such as extroversion and introversion, risk taking, feelings of anomie, search for meaning and rebellion against parents, search for excitement, animosity, poor relationship with authority figure, family disorganization, boredom, reduction of feelings of personal adequacy, escape from responsibility, moodiness, nervousness, evasiveness, notoriety, impulsiveness, aggressiveness, and hyperactivity.

Smoking is possible under a wide variety of circumstance or settings. These numerous settings become discriminative for smoking and thus come to serve as learned reinforcers for smoking. Thus an urge is subjectively experienced when these situations are encountered. The enjoyment of oral, manual, and respiratory manipulation involved in the process of lighting, puffing, and handling cigarette reinforce the art of smoking. For most smokers therefore, the combination of nicotine and psychosocial learning

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produces such dependency that going without a cigarette is highly unpleasant (Fleming, Leventhal, Glynn & Ershler, 1989).

Different factors are involved at different stages of smoking and this has implication for intervention. Higher levels of drug use including cigarette smoking has been found to be associated with parental use, family background, single parentage, parental conflict, family disorganization, social class and peer group (Ndom & Adelekan, 1996). Ndom and Adelekan describe the typical smoker as male, young, single, from a polygamous and a low socioeconomic background. In their phase 1 survey, Ndom and Adelekan (1996) identified the following as common correlates to the three substances investigated (alcohol, cigarettes and cannabis); Peer influence, self-reported poor mental health, religiosity, parental/guardian supervision, perceived availability and perceived harmfulness.

In addition, drinking and smoking were reported to be more common among males and among respondents who reported study difficulties. The findings of Adelekan and Ndom supported already existing literature. Mangan and Golding (1983) found that about 32 percent of smokers have mothers who smoke as against 23 percent of non-smoking mothers. They also found that a high percentage of smokers were found to have fathers who smoke and senior siblings and friends that smoke. These factors have implications for assessment and treatment. Such factors include role model, learning processes, modeling and socialization. The cue and the reinforcers of the behaviour are important. Smoking like gambling, pool-staking, and prostitution is a compulsive behaviour.

Why do people smoke despite all the evidences showing that it is bad for their health? It is not that they are somehow unaware of the association between smoking and disease: surveys show that 71 percent of smokers agree, "Cigarette smoking frequently causes disease and death". (U.S Department of Health and Human Services, 1981). Heredity seems to determine, in part, whether people will become smokers, how much they will smoke, and how easily they can quit (Carmeli, Swan, Robinette, & Fabsitz, 1992, Poerlau, 1995, Health and Madden, 1995).

Genetics may also influence how susceptible people are to the harmful effects of smoking for instance; there is a 48 percent higher rate of lung cancer in African-American smokers than in white smokers. This difference may be due to genetically produced variations in the efficiency with which enzymes are able to reduce the effects of the cancer-causing chemicals in tobacco smoke. On the other hand, although genetics play a role in smoking, most research suggests that environmental factors are the primary causes of the habit (Boomsma & Koopmans, 1994). Cigarette smoking has long been recognized as a major health problem and the single most preventable cause of death. Quitting however confers almost immediate health benefits. Therefore, the factors associated with initiation of smoking and smoking cessation has important public health implications.

Past researches has shown that the earlier individual begin daily smoking the more cigarette they are likely to smoke and are less likely to quit. Most smokers begin daily smoking in their teens. In 1994/95, 16 percent of 21-39 year olds who had ever smoked daily reported that they had started to do so at age 14 or younger. 55 percent reported ages 14 to 17, and 15 percent, ages 18 or 19. Just 14 percent had started daily smoking at age 20 or older (Beauder, 1996). Starting to smoke at an early age was

associated with heavy smoking in later life. The odds of being a heavy smoker were significantly greater for those who began in early adolescence, compared with those who started at age 20 or older (Taoli & Wynder, 1991).

A number of other factors were linked with heavy smoking. The odds were greater for man than women. Educational attainment was also important as people with less than high school graduation had higher odds of being heavy smokers than did those with college or university graduation. By contrast, while chronic stress was significantly related to heavy smoking, depression during the last year and low self-esteem were not (Anda, Williamson, Escobedo, 1990).

Self-efficacy is another factor that could be considered while examining smoking initiation and cessation. Bandura (1997) defines self-efficacy as “the conviction that one can successfully execute the behavior required to produce the desired outcomes”. Self-efficacy can affect health behavior in a number of ways. Self-judgments of efficacy determine choice behavior that is, which activities will be attempted and which to avoid. Attempts to reduce cigarette use will be affected by self-judgments. Self-efficacy also affects the amount of effort devoted to a task, and the length of persistence when difficulties are encountered. Recovery from serious illness or physical trauma may be more rapid and complete in those whose beliefs in their physical efficacy are strong. Imhonde, Afolabi, and Ehon (2001), in their study of the influence of self-efficacy, duration of smoking and gender on perceived smoking cessation, found that self-efficacy was important in considering smoking cessation.

Leventhal and Cleary (1980) described smoking as a complex behavior that evolves through several stages. Smoking in adolescence is commonly conceptualized as progressing through a sequence of developmental stages characterized by different stages of smoking frequency and intensity, often cumulating in nicotine dependence (Cobby, Tiffany, Shiffman, Niaura, 2000). Basic definitions of smoking have been summarized as preparation, initial trying experimentation, regular use and addictive use (Flay, 1993, Flay Ockeme, & Tager, 1992).

The preparation stage involves formation of beliefs and attitude about smoking prior to ever trying a cigarette. Initial trying refers to experimentation with the first few cigarettes, with a gradual increase in the frequency of smoking in various situations. Regular use refers to smoking on a regular, although still infrequent basis, such as every weekend or weekdays before or after school. Addictive use refers to adolescent smoking that occurs on a regular basis and is driven by cravings for nicotine, regular daily smoking, and experience of withdrawal symptoms when cigarette intake is delay (Colby, et al 2000).

It is also clear that apart from the psychological factors, there are biological reasons for the maintenance of smoking. Smokers develop a psychological dependence on the nicotine content of cigarettes. Ultimately, when this happened a complex relationship develops among smoking, nicotine levels and the smoker’s emotional state. Specifically, it seems that smoking tends to affect and regulate people’s emotions. Because smoking raises the nicotine level in the blood, a certain nicotine level eventually becomes associated with a positive emotional state. As a result, people smoke in order to regulate both emotional states and nicotine level in the blood (Leventhal & Cleary, 1980) Pomerlean & Pomerleau, 1989, Nowak, 1994b Gilbert 1995).

The present study sought to examine the role of age, sex and self-efficacy on smoking behavior here defined as initiation and perceived quitting behavior. In doing so we hypothesized that extroverts will engage in smoking much earlier than introverts. Secondly we postulated that Females would experience first use of cigarette earlier than males. Thirdly we hypothesized that smokers with high self-efficacy are likely to have a favorable attitude toward perceived smoking cessation than smokers with low self-efficacy. Lastly we postulated that adults (defined here as smokers who are 25 years and above) will have a favorable attitude toward perceived smoking cessation than young adult (below 25 not less than 18).

## **Method of study**

### *Participants*

The research participants comprised of 250 undergraduate students drawn from five faculties (50 students from each faculty) in Ambrose Alli University, Ekpoma. The faculties used were the faculties of social sciences, law, engineering, Agriculture, and natural science. The total number of male was 160 (64.0%), while female were 90(30.0%). Out of the 250 participants used for analysis, 125 (50%) were catholic, 45 (18, 4%) were Muslim, 46(18.4%) were Pentecostal; 20(8%) were traditional worshippers, while the remaining 13 (5.2%) fell into other religion not specified in this research. 90(36%0 participant were occasional smokers, while the remaining 160 (64%) participant were regular smokers. Participants who got initiated into smoking by friends were 57(22, 8%) while 50(20%) were initiated as a result of either or both of their parents smoking, the remaining 143(57.2%) were initiated as a result of their nearness to the source of cigarette. The ages of all the participants (both male and female) fell within the ranges of 15 to 27 years, and their mean age was (21,14).

### *Instrument*

The instrument used in gathering data for this study was a questionnaire. The questionnaire was made up of four sections, which are presented under the following sub-headings:

### *Demographic variables*

This section of the questionnaire elicited social demographic information about participants. Specifically, information required from the respondents included their gender. Age, sex, frequency of smoking, cues that makes them smoke, and age of initiation.

### *Extraversion Scale (ES)*

The extraversion scale was adapted from the Eysenck Personality Questionnaire. It is a 22-item scale which tests the tendency of the respondent toward social inhibition, passivity, and caution, sociability, activity and willingness to take risks. It has a 'YES' or 'NO' response format. Yes was scored 2, No was scored 1. The scale was also re-tested among a sample of 60 current adolescent smokers (50 males and 10 females) and 70 non-adolescent smokers (40 males and 30 females) in Benin City. Psychometric properties of the scale were established, with coefficient alpha of 0.91 and split half reliability of 0.67.

### *Self-Efficacy Scale (SES)*

Self-efficacy was measured by the SES which was adapted from Coletti, Supnick & Payne (1985) and revalidated by Imhonde, Afolabi, & Ehon (2001). It is a 22-item scale and is measured on five point strongly Agree (5) to strongly disagree (1) Likert type response format. The SES has a coefficient alpha of 0.72 and Guttman split half reliability of 0.63

### *Attitude toward Smoking Cessation Scale*

This was a 20-item scale with likert type response format; strongly agree (5), agree (4) undecided (3), disagree (2) strongly disagree (1). A reliability coefficient alpha of .65 was obtained for this study.

### **Procedure**

Copies of the questionnaire were personally administered to the students by the researchers by going to their faculties. Due to the relative length of the questionnaire, participants were allowed to take the questionnaire home and were implored upon to return the completed questionnaire to the faculty office from where copies of the scale were retrieved after two days.

### **Results**

The independent t-test was basically used for analysis. Results showed that there was a significant difference between females and males in the onset of smoking ( $t = 2.354$ ,  $df = 248$ ,  $p < .05$ ). Results also showed that there was a significant difference between smokers' with high self-efficacy and low self-efficacy on perceived smoking cessation ( $t = 3.256$ ,  $df = 248$ ,  $P < .05$ ). However, there was no significant difference between extroverts and introverts in the initiation of smoking ( $t = -1.11$ ,  $df = 248$ ,  $p = n.s.$ ). Age was also not significant in the perception of smoking cessation ( $t = 1.347$ ,  $df = 248$ ,  $p = n.s.$ ).

### **Discussion**

This study examines the influence of gender, self-efficacy, personality and age on smoking behavior. Results of the study showed that two out of the four hypotheses stated were confirmed. Hypothesis one which stated that extroverts will engage in smoking initiation earlier than introverts was not supported. This goes to show that whether you are extroverted or introverted, it is not certain who starts smoking first. There are times when introverts may begin earlier than extroverts in the initiation of smoking. So also introverts may be earlier than extroverts in the initiation of smoking. This may be as a result of environmental factors and possible peer group influences. This finding supported the work of Brown, Lewinsohn, Seeley, & Wagner, 1996, who found that extroverts brought up in an environment where smoking is permitted, are more likely to smoke early, than introverts brought up in the same environment.

The second hypothesis showed that there was no significant difference in the attitude of adults and young adults on perceived smoking cessation. This finding was supported by Carmody (1992). His findings showed that it is not too certain as to whom whether adults or young adults have a favourable attitude toward perceived smoking

cessation. This finding did not support the findings of Freund, D'Agostino, Belanger (1992) who found 70% adults, 30% young adult, favouring perceived smoking cessation.

Results obtained also shows that females engage in smoking earlier than males. This result was surprising, considering the cultural perspective that frowns on females smoking in Nigeria. There is a strong relationship between this finding and the findings of Imhonde, Afolabi, & Ehon (2002), which discovered that females who smoke do not see themselves as females first, but rather as individual who are capable of doing things that any other individual can do. This finding was also supported by the findings of Fiore, Novotry & Piece (1989) who found a significantly positive relationship between females and male on smoking initiation.

The findings that smokers with high self-efficacy have a favorable attitude toward perceived smoking cessation than smokers with low self-efficacy was not surprising as it is the believe that individuals with high self-efficacy are capable of initiating and carrying to the end task initiated. Self-efficacy for a specific situation has been said to allow one to deal better with uncertainty, distress, and conflict in realm of thought (Bandura, 1997; D'Clemente, 1986).

#### Conclusion

The findings of this study revealed that sex, age, self-efficacy, personality variables (extroversion and introversion) has a strong effect on smoking behaviour (initiation and quitting). There was however some limitation to this study. The first is that the study was limited to just one out of about 78 universities (both government owned and private universities) in Nigeria. This has implications for generalization of results thus obtained. Secondly possible biases in responses could be another limitation. In this case, the respondents may falsify responses, which were not really the opinions held by them. But on the surface the responses look genuine.

Despite these limitations, this study possesses several strengths. For one the almost equal representation of females in the sample which hitherto was a difficult task to come by as no female in Nigeria would naturally want to come out and accept being a smoker as a result of the stigma attached to female smoking. This study has also provided insights, which therapist and counselors need to know for future planning, delivery of intervention package and what should form a psycho educational training on the need not to smoke and those already smoking, the need to stop. The need to build a strong self-efficacy on those about to embark on smoking cessation program is very important.

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