

Smoking and Self-justification among University Students

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ABSTRACT The present study explored university students' perceptions of cigarette smoking. A sample of 60 participants who were attending a leadership training course for student leaders was selected. A 16 – item questionnaire was administered to the participants to gather their opinions on cigarette smoking. The study found that there was a high prevalence of cigarette smoking among the students. The onset of smoking was high at high school with a comparable proportion at university level. The main agents of influences were peers, television and radio. There was a high level of awareness of the effects of cigarette smoking, although, perceived benefits were cited as self-justification for smoking. Most of the participants expressed willingness to quit smoking and suggested the use of lectures and graphic images as effective strategies for anti-smoking campaigns. The study recommended further research to explore gender differentiation on smoking.

INTRODUCTION

Smoking is a major cause of morbidity and mortality (Jha et al. 2013; US Department of Health and Human Sciences 2014). Several studies (Banzhaf 1995; Brannon 2004; Baker 2007; Iyiola 2013) across the socio-economic and geo-political divide revealed the fatal effects of tobacco smoking. In nations that have a long history of cigarette use rather than the greatest gender equality, smoking was observed to be gender neutral (Pampel 2001). It was further observed that, in developing economies, the narrowing of sex differential in smoking coincide with movement towards gender equality and independence among women implying that their rising status contributed to their adoption of male smoking habits. The onset of cigarette smoking across gender is mainly at adolescent stage. It may hinge on factors that are to do with socialisation, environment and disposition.

Despite clearly written warnings inscribed by cigarette manufacturers on all packaging and advertisements in the print and electronic media, for example, radio and television, tobacco smoking still remains a global challenge (Baker 2007). The overwhelming evidence linking smoking and tobacco smoke to diseases in smokers and non-smokers is not making meaningful impact to eradicate the behavior, instead many continue to commit slow motion suicide and risk lung cancer in a spouse, child, friend or self (Banzhaf 1995). This source further asserted that tobacco smoke contains benzene, ammonia, hydrogen cyanide, acetone, butane, Dichloro

Diphenyl Trichloroethane, formaldehyde, hydrazine and more than 40 other chemicals that cause cancer. Concurrently, Brannon (2004) posits that processed tobacco cigarettes contain at least 2 550 compounds which could increase to 4 000 through burning. Smoking may lead to cancer, cardiovascular diseases, respiratory diseases, mental illness while making people less attractive among many other effects.

In many African communities, smoking is a lifestyle that is practiced by adults as well as the youth. The practice also cuts across gender. Smoking is associated with several diseases (Lakier 1992; Armadans-Gil et al. 1999), and public awareness and beliefs about its health risks have increased considerably, especially among adolescents and this was reflected in declining smoking rates in numerous developed countries. However, in developing countries cigarette smoking is likely to increase tremendously in the next two decades as the tobacco industry concentrates its marketing on youth (Iyiola 2013). In addition, Monyeke et al. (2010) contend that the high smoking behaviour in developing countries is escalated by the indigenous knowledge, practice and traditional beliefs.

It is believed that people in the lower socio-economic class with limited education constitute the highest part of smokers presumably because of difficulty in understanding and appreciating harmful effects of tobacco smoking. It is, therefore, puzzling that despite the efforts to warn people against effects of smoking made by governments in collaboration with cigarette manufacturing companies as directed by the

World Health Organisation, the young intellectually gifted university students seem not to heed the call as well. Researchers therefore made an attempt to explain the smoking pattern that flies in the face of conventional wisdom. Banzaf (1995) cites the Federal Trade Commission which argued that though intelligent and well educated; many smokers often have difficulty in personalizing a danger or a risk to themselves. Thus, they have difficulty believing or appreciating that smoking could be harmful to them. The cause is also presumably attributed to a personality type that glorifies danger and actually seeks out risk for the thrill it provides, so called thrill smokers.

Brannon (2004) noted that some people continue to smoke due to optimistic bias. They believe that they have a lower risk of disease or death than other smokers. Some get addicted to smoking while others find the behaviour pleasurable. Heredity was also believed to moderate smoking behaviour as revealed by studies on identical and fraternal twins. It is therefore not surprising that smoking runs in some families. Further, Brannon (2004) observed that some smokers were influenced by their friends and media. Zulu et al. (2009) contend that tobacco advertising bans have been effective in reducing consumption in a number of countries including South Africa, Zambia, New Zealand, Canada where the ban has been associated with the rapid decline in tobacco consumptions. According to Yang et al. (2004), children admire their doctors when they smoke.

In a bid to make the anti-smoking campaign more effective, the United Kingdom Government embarked on crafting regulations that would compel all manufacturers to print images that highlight the dangers of smoking on all tobacco products (Morris 2014). Consultations with the public done by the health experts led to the selection of 15 images including those on diseased lungs that should accompany graphic adverts on lung cancer and heart disease. Countries like Canada and Brazil that had already introduced picture warnings found the method quite effective in raising awareness among their populace (Morris 2014). However, the development attracted mixed reactions as the pro-anti-smoking group welcomed it while the smokers' lobby group viewed it as victimization, indeed habits die hard. The promulgation of smokers' lobby group is a clear testimony that the messages were incom-

patible with their attitudes and habits and therefore led to dissonance arousing among them. It is not surprising as the exposure of people to new information or graphic texts that threaten or change their beliefs create further tension within them (Encyclopedia of Psychology 2001).

The central construct to self-justification theory is based on the theory of cognitive dissonance put forward in the 1960s by Festinger (1957). Cognitive dissonance refers to a state of tension that occurs when a person holds two cognitions (ideas, attitudes, beliefs, opinions) that are psychologically inconsistent (Louie and Frisch 1997; Tavis and Aronson 2007). For instance, "smoking will shorten the life which I wish to live for as long as possible" and yet "I smoke three packs a day". According to Redmond and Schmidt (2014), dissonance is not necessarily a result of the difference between actions and beliefs, but the resulting degradation of self-image. For example, if a person does not behave in line with his/her beliefs, this may threaten his/her integrity.

According to Festinger (1957), when people become aware that their freely chosen actions violate important or relevant attitudes, the inconsistency produces an uncomfortable state of arousal called *dissonance*. The dissonance that results motivates people to change their initial attitudes to make them consistent with their behaviour.

Festinger proposed four steps that are necessary to produce dissonance, and for that dissonance to produce attitude change:

Step 1: The individual must perceive the action as inconsistent and that inconsistency alone is enough to cause discomfort or dissonance. Actions that are inconsistent with positive and important self-images are likely to cause cognitive dissonance.

Step 2: The individual must take personal responsibility for the action. Dissonance is only aroused when an internal attribution is made. Thus, people who attribute their actions to external rewards or punishments will not experience dissonance.

Step 3: The individual must experience uncomfortable or unpleasant physiological arousal.

Step 4: The individual must attribute the arousal to the inconsistency between attitude and action. People have to believe that their unpleasant feelings are a result of the

inconsistency of their behaviour with their attitudes in order to focus their attention on that inconsistency.

Self-justification describes how, when a person encounters cognitive dissonance, or a situation in which a person's behavior is inconsistent with their beliefs, that person tends to justify the behaviour and deny any negative feedback associated with the behavior (Wikipedia 2012). Thus, self-justification theory suggests that a person tends to justify prior behavior, rebuffing any negative feedback associated with the course of action (Keil 1995). A person influenced by self-justification will be inclined to have a very favorable opinion of previously chosen actions. When confronted by perceived discrepancies related to self-concept, negative feedback from image management attempts, or lack of self-affirmation, people will react to the situation by self justification. In order to reduce the psychological discomfort, the individual would strive to quit smoking or justify it to lead a consistent and meaningful life (Tavris and Aronson 2007). Self-justification typically manifests in two forms that are: internal self-justification and external self-justification (Holland et al. 2002).

Internal self-justification involves changing the way people perceive their actions. This may be achieved in several ways that include attitude change, trivialisation of the negative consequences or denial of the negative consequences (Aronson 2007). Hence, internal self-justification helps make the negative outcomes more tolerable and is usually elicited by hedonistic dissonance. For instance, the smoker may tell himself that smoking is not really that bad for his health.

As personality varies among people, some react to dissonance with cognitive competence while others react with cognitive incompetence. Driven by the principle that people prefer their cognitions, or beliefs to be consistent with each other and with their own behaviour (Encyclopedia of Psychology 2001), some quit smoking (Aronson 2007) while others justify it.

In their study on smoking nursing students, Harmon-Jones and Mills (1999) in Clark et al. (2003) found that some smokers reduced dissonance through avoidance or trivialisation hence, were just resistant to change. They just down played the credibility of research information that highlights the adverse health effects of smoking. In the same vein, Brannon (2004) cited opti-

mistic bias as one of the reasons why some people continue to smoke. They allegedly believe that they have a lower risk of disease or death. They work hard to convince themselves that smoking is right (Aronson 2007).

The smokers may also reduce the psychological discomfort through rationalisation. They focus on the perceived positive aspects of smoking and the negative aspects of non-smoking. The perceived benefits of smoking may include the reduction of weight, keeping oneself awake (Brannon 2004), for reading, easing stress, improvement of concentration and boosting one's reasoning capacity. They come up with adhoc hypotheses or rationalisations to serve cherished notions (Cooper 2007). Other smokers cite ingenious, self-deluding ways to continue smoking. They say that smoking prevents weight gain, it is not really harmful, it helps one to relax and that it prevents tooth decay (Brannon 2004; Aronson 2007). Furthermore, other smokers rationalise by reducing the rate of smoking while others opt for low tar cigarettes (Savant et al. 2014).

The other strategy, similar to trivialisation that smokers use is bolstering (Louie and Frisch 1997). They state that the pressure to feel consistent with inner attitudes often causes people to reinforce those attitudes with consonant behaviours or attitudes. A smoker who realizes that smoking is harmful to health may say that cigarettes have no nutritional value and that it is financially draining.

Self-affirmation is another strategy that people use to reduce cognitive dissonance. According to Redmond and Schmidt (2014), people may reaffirm their 'goodness' or self concept in order to reduce cognitive dissonance. Researchers have shown that this reaffirmation is actually better at reducing dissonant feelings if it is in an unrelated area than a related one. For example, if a smoker is experiencing dissonance because he knows that smoking is bad for his health, he could reduce his dissonance by reminding himself that he is an environmentally friendly person and does a lot of good in reducing his carbon footprint. However, subsequent researches indicate that in low-threat situations, people with high self-esteem are less likely to engage in self-justification strategies than those with low self-esteem (Holland et al. 2002). A plausible explanation is that people with high self-esteem have more accessible positive thoughts

about themselves that can successfully reduce dissonance.

According to Taylor (2012), external self-justification refers to the use of external excuses to justify one's actions. This may be done through the displacement of personal responsibility, lack of self-control or social pressures. External self-justification seeks to diminish a person's responsibility for behaviour and is usually elicited by moral dissonance (Holland et al. 2002). For example, the smoker might say that he smokes because his friends do so or smoke at special occasions.

Smokers who find it too difficult to quit the behaviour may do so after seeing a friend who suffered a heart attack, stroke or lung removal as a result of smoking make them stop smoking where as statistics may have minimal impact (Banzaf 1995). This is in line with the observation that there is minimal association between levels of knowledge and attitudes about being sensitive to smoking-related health risks (Jha et al. 2013; US Department of Health and Human Sciences 2014). A comparative study that they conducted revealed that nurses who were more knowledgeable about effects of tobacco smoking, smoked at the same rate as the general population.

Previous researches suggested that there is an association between culture and cognitive dissonance. Although culture is a difficult concept to define, most scholars agree that it is the shared ways in which groups of people understand and interpret their surroundings (Heine 2005; Leary and Baumeister 2000). According to Hofstede (1984), culture is learned and therefore is rooted in a society or nation. Culture is acquired early in life and reinforced through socialisation. Hall (1976) posits that people's thought processes are greatly modified by culture. Hence, cognitive dissonance might arise differently in people from different cultures, who define their "selves" differently. For people of independence-oriented cultures (such as Western Europe and United States of America), making a wrong decision is personally threatening and will induce dissonance. However, making a wrong decision may not be threatening to people of interdependence-oriented or collectivistic cultures (such as Asians, Black Africans). For individuals in collectivistic cultures, the super-ordinate goal is a sense of interconnectedness and belongingness with one's social in-

group, rather than direct personal control over social situations (Markus and Kitayama 1991).

The absence of local literature on smoking and self-justification motivated the researchers to conduct the study. Therefore, the study sought to establish whether the situation obtaining locally was consistent with observations made elsewhere.

Aim of the Study

The aim of the study was to investigate self-justification for smoking by University students. Specifically, the study was guided by the following research questions;

- ♦ What is the prevalence of smoking among students?
- ♦ What are the dangers of smoking cigarettes?
- ♦ When do students start to smoke cigarettes?
- ♦ What social agents influence the students to smoke cigarettes?
- ♦ Why do students smoke cigarettes?
- ♦ How could cigarette smoking be reduced?

METHODOLOGY

Research Design

A normative survey was conducted. According to Carroll (2012), a normative survey attempts to describe and explain conditions of the present by using many subjects and questionnaires to fully describe a phenomenon. In the present study, the process involved acquiring information about a group of university students on their opinions of cigarette smoking. In a normative survey, the participants are asked questions, their answers are tabulated and inferences are drawn about a particular population from the responses of the sample (Selamat 2012). Its ultimate goal is to learn about a large population by surveying a sample of that population.

Participants and Setting

Sixty (60) participants were randomly selected from the social science group that was attending lectures at the campus where one of the researchers was based. The sample comprised thirty-three (33) female and twenty-seven (27) male participants. Randomisation ensured that every student in the social science group had an equal and independent chance of being se-

lected. The researcher hand delivered the questionnaires to the participants. Prior to the administration of the questionnaire, informed consent was obtained.

Instrument

A 16- item questionnaire was administered to the participants to capture their opinions on smoking. The questionnaire had four sections. The first section had questions on demographic data. Sections two and three had items on factors that influenced the students to smoke and effects of smoking respectively. The last section had items on quit smoking intentions and strategies. Prior to data collection, the questionnaire was administered to five students who were not part of the sample to assess its reliability. It had a reliability coefficient of 0.88.

Procedure

A questionnaire was designed, pilot-tested and then administered to the participants. The questionnaire was administered by the researcher to reduce bias. The participants were given forty-eight hours to reflect on the questions before answering. A 96 percent questionnaire return rate was realised.

Data

Descriptive statistics were used to analyse collected data. The means and percentages were used to indicate response frequencies (Kothari 2004). These were used because they are easy to comprehend and interpret. In addition, descriptive statistics was preferred for its ability to collect, organise and compare discreet categorical data in a more manageable form (Trochim 2006).

Ethical Considerations

Permission to conduct the study was obtained from the participating University. Informed consent was formally obtained from the participants. Their participation was voluntary and they were informed of their right to withdraw from the study. The participants were not subjected to physical or psychological harm. Reporting by the participants was anonymous. They were not required to write their names on

the questionnaire. The researchers assured them that information that might lead to their identification was to be kept in strict confidence.

RESULTS

Table 1 displays that gender representation in the study was fair. Females were marginally more than their male counterparts. There was a very high tobacco smoking rate of 45 percent among the participating students. Most students started to smoke at high school (44.8%) and a comparable proportion (41.4%) at University level. The least number commenced smoking at primary school level. The responses included the views of two participants who had quit smoking. The majority of smokers were influenced by their peers. Television and radio also played a significant role in influencing the students to indulge in cigarette smoking. Fifteen percent (n=5) of the participants who were influenced imitated their fathers while six percent were influenced by their brothers.

Table 1: Participants by gender, status of smoking, onset of smoking and social agent (n=60)

<i>Gender</i>	<i>Number</i>	<i>Percentage</i>
Female	33	55
Male	27	45
Total	60	100
<i>Status</i>	<i>Number</i>	<i>Percentage</i>
Smokers	27	45
Non-smokers	33	55
Total	60	100
<i>Level</i>	<i>Number</i>	<i>Percentage</i>
Primary School	4	13.8
Secondary School	13	44.8
University	12	41.4
Total	29	100
<i>Factor</i>	<i>Number</i>	<i>Percentage</i>
Brother	2	6.1
Friend	17	52
Father	5	15.2
Television/Radio	9	27.3
Total	33	100

Table 2 shows that there was a very high level of awareness of the adverse effects of cigarette smoking among the students. Most of the participants indicated that tobacco smoking was harmful (83%; n=50), causes cancer (95%; n=57) and that tobacco smoke contains substances that are harmful to the human body (90%; n=54).

Table 2: Participants' knowledge of effects of smoking (n=60)

<i>Effect</i>	<i>Response frequency</i>	
	<i>Yes</i>	<i>No</i>
Smoking is harmful	50 (83%)	10 (17%)
Smoking causes cancer	57 (95%)	3 (5%)
Cigarette smoke has harmful substances	54 (90%)	6 (10%)

Table 3 presents that despite demonstrating high knowledge of the devastating effects of cigarette smoking, most (83%; n=50) of the participants cited perceived benefits as justification for smoking. They felt that cigarette smoking was not as harmful as reported and that they smoked moderately as a control measure. Some participants believed that smoking enhances concentration, reduces stress, keeps them refreshed and awake, helps them to relax, cures obesity, improves reasoning capacity and prevents tooth decay. The other participants indicated that they smoked for fun while others found it prestigious.

Table 3: Reasons for smoking

<i>Item</i>	<i>Frequency</i>	<i>Percentage (%)</i>
Tobacco is not as harmful as purported	21	22.1
I smoke moderately to be safe	20	21.1
Smoking boosts concentration	9	9.5
Smoking reduces stress	9	9.5
I smoke for fun	8	8.4
Smoking helps one to relax	6	6.3
Smoking refreshes and makes one awake	6	6.3
Smoking is prestigious	5	5.3
Smoking cures obesity	5	5.3
Smoking improves reasoning capacity	3	3.2
Smoking prevents tooth decay	3	3.2

Table 4 shows that the majority of the smokers wanted to quit smoking. Furthermore, the preferred strategies for quitting cigarette smoking were lectures and the inscription of anti-smoking pictures and written messages on cigarette packages.

Table 4: Smoking quit intentions and strategies

<i>Item</i>	<i>Response</i>	<i>Frequency</i>
Intention to quit smoking	Intending to quit	(47) 78%
	No intention to quit	(13) 22%
Strategies to quit smoking	Lectures	(31) 52%
	Pictures and written messages	(29) 48%

DISCUSSION

The study revealed that smoking was highly prevalent among the student population particularly the leaders as 45 percent of the participants indicated that they smoked tobacco. This finding is consistent with previous research that indicated that smoking is a lifestyle that is practiced by adults as well as the youth in several African communities (Lakier 1992; Armadans-Gil et al. 1999). Further, the finding is in line with the prediction that the prevalence of smoking is likely to increase in the next two decades (Iyiola 2013). The high smoking behaviour in developing countries is influenced by the indigenous knowledge, practice and traditional beliefs (Monyeki et al. 2010). In addition, the increase in smoking among the youth is attributed to the tobacco industry that concentrates its marketing on the age group (Iyiola 2013).

The findings of the present study, contradict Banzaf's (1995) assertion that people in the lower socio-economic class with limited education constitute the highest part of smokers presumably because of difficulty in comprehending and appreciating harmful effects of tobacco smoking. The young intellectually gifted University students in a developing economy may smoke to cope with stress especially in an astronomically high inflationary environment that prevailed in Zimbabwe at the time of this study. They may also indulge in cigarette smoking as a sign of independence or assertiveness and/or an indicator of affluence.

The fact that a growing number of females indulge in cigarette smoking support the finding that developing nations were experiencing the narrowing of sex differential in smoking that coincide with the movement towards gender equality and independence among women (Pampel 2001). Thus, the rise in status of women contributes to their adoption of male smoking habits. In concurrence with observations made by Clark et al. (2003), it emerged from the study that high school was the most critical period for the onset of smoking among the students. A fairly equal number indulged in tobacco smoking at University level. The two levels coincide with the adolescent stage at which some young men and women experiment with drugs and alcohol. The few students who started smoking at primary school level were presumably influenced by their fathers, brothers, teachers, other influential

people in the society and media. Also, these students could have experienced early maturation.

It was not surprising to observe that the majority of the smoking students were influenced by their friends as University students, generally in the early twenties of age could be experiencing delayed adolescence. The greater part of their life is spent in educational settings that may not accord them the opportunity to fully socialise. Adolescents are commonly known for putting more trust in their peers than authority figures including parents (Erikson 1968). The friends, therefore, become role models and norms set by the group prove too difficult to resist for individual members. Peer pressure therefore cannot be divorced from the complex circle of influence. In the same vein, the study showed that television and radio are very powerful marketing tools as 27 percent of the smokers said that they were influenced by the media. The use of role models by marketing firms makes the products more appealing. The adolescents may then imitate the prominent persons in society as part of identity formation. The study confirmed findings by Brannon (2004) who observed that smokers were influenced by their friends or peers and multi-media.

The participants demonstrated high knowledge of the fatal effects of smoking. Their high level of awareness confirmed the finding that tobacco smoking exposes both smokers and non-smokers to diseases like cancer as tobacco smoke contains benzene, ammonia, hydrogen cyanide and more than 40 chemicals that cause cancer and other diseases (Banzaf 1995; Brannon 2004; Jha et al. 2013; US Department of Health and Human Sciences 2014).

Despite demonstrating a high level of awareness of the dangers of cigarette smoking, some participants (6%) indicated that they were not ready to quit smoking. This supports Brannon's (2004) and Tavis and Aronson's (2007) finding that rather than quit, smokers tend to justify the scientifically fatal habit. Instead of quitting tobacco intake, the smokers tend to focus on perceived benefits that include the reduction of weight, keeping oneself refreshed and awake for reading, easing stress, enhancement of concentration, boosting of reasoning capacity, prevention of tooth decay. Some indicated that they smoked moderately while others take mild type of cigarettes as part of rationalization. It is, how-

ever, saddening that many of the reasons cited lack scientific evidence.

Most of the participants indicated that tobacco was not as harmful as reported. This confirms Louie and Frisch's (1997) and Harmon-Jones and Mills in Clark et al.'s (2003) finding that smokers use trivialisation to justify their behaviour. They argue that smoking is not as harmful as purported. In the same vein, the observation also supports Brannon (2004) who posited that some people smoke due to optimistic bias. They hold the false belief that they have a lower risk of disease or death than others. He further observed that some smokers hang on to the habit because of addiction while others find smoking pleasurable. The finding that cigarette smoking was prestigious was not authenticated by available literature.

The smokers suggested two strategies that could be used to combat tobacco smoking. Lectures on anti-smoking and the inscription of picture and written messages on cigarette packages proved fairly equally popular. The use of the lecture method had a slight edge possibly because it is the most widely used approach at institutions of higher learning especially in developing countries where resources are scarce. Consistent with developments in the UK, Brazil and Canada where the use of graphic images in anti-smoking campaigns proved effective (Morris 2014), the same method was also recommended by the participating undergraduate students.

CONCLUSION

Tobacco smoking was highly prevalent among University students who took part in the study despite demonstrating avid knowledge of its fatal effects. Adolescence, coupled with the role of friends and media proved critical on the onset of tobacco smoking. Most students started smoking cigarettes at secondary school and university. They were mainly influenced by friends, media and fathers. Some smokers were reluctant to quit smoking by engaging in rationalization, trivialization and bolstering to reduce the pressure to stop smoking. Finally, those who indicated the need to quit smoking suggested the adoption of the lecture method and the inscription of picture and written messages on cigarette packages as effective tools in the campaign against tobacco smoking. The findings of the study may not be generalized to students at

other universities as they are based on a small sample that comprised social science students only.

RECOMMENDATIONS

- ♦ Further research is recommended to explore gender differentiation on smoking among University students.
- ♦ There is need for educational institutions to vigorously campaign against the use of tobacco by students as the effects are fatal.
- ♦ The anti-smoking campaigns should be targeted at late primary school level and then scaled up to both high school and tertiary levels.
- ♦ Peers, parents and siblings and media personnel being vital stakeholders in anti-tobacco smoking campaigns need regular, accurate and up to date information.
- ♦ The governing authorities should come up with regulations that compel cigarette manufacturing companies to inscribe graphic pictures and written messages on cigarette packages to warn people about the health risks of cigarette smoking.

LIMITATIONS OF THE STUDY

The present study was not without limitations. A normative survey captures a fleeting moment in time, draws conclusions from one transitory collection of data and extrapolates about the state of affairs over a longer time period. This compromises the generalisability of the findings. The study relied on the participants' self reports which might not have been accurate. People's memories of events are often distortions of reality. Their descriptions of their attitudes and opinions are often constructed on the spot, therefore, they may be coloured by recent events or the current context.

REFERENCES

- Armada-Gil L, Vaque-Rafart J, Rosselló J, Olona M, Alseda M 1999. Cigarette smoking and the lung cancer risk with special regard to type of tobacco. *Inter Jour of Epid*, 2: 614-619.
- Aronson E 2007. *Why is it Hard to Admit to Being Wrong?* Santa Cruz: University of California.
- Axson D, Lawless WF 1992. Subsequent behaviour can erase evidence of dissonance-induced attitude change. *Jour of Exper Soc Psych*, 28: 387-400.
- Baker RR 2007. The generation of formaldehyde in cigarettes: Overview and recent experiments. *Food Chem Toxicol*, 45(9): 1783-1786.
- Banzaf J 1995. Why Smokers Are Ignoring The Massive Cigarette Recall: Cognitive Dissonance. From <<http://www.ash.org/pr/recall2.htm>> (Retrieved on 18 March 2014).
- Carroll S 2012. Types of Research Designs You Can Use For Your Dissertation. From <<http://www.dissertation-statistics.com/research-designs>> (Retrieved on 18 March 2014).
- Clark E, McCann TV, Rowe K, Lazenbatt A 2003. *Cognitive Dissonance and Undergraduate Nursing Students' Knowledge of and Attitudes About Smoking*. Melbourne: La Trobe University.
- Cooper J 2007. *Cognitive Dissonance: 50 Years of a Classic Theory*. London: Sage Publications.
- Dickerson CA, Thibodeau R, Aronson E, Miller D 1992. Using cognitive dissonance to encourage water conservation. *Jour of Appl Soc Psych*, 22(11): 841-854.
- Erikson E 1968. *Identity, Youth and Crisis*. New York: Norton.
- Encyclopedia of Psychology 2001. Cognitive Dissonance. From <<http://findarticles.com>> (Retrieved on 18 March 2014).
- Feldman N 2007. *Cognitive Dissonance*. Lithuania: Havoline.
- Festinger L 1957. *A Theory of Cognitive Dissonance*. Stanford, CA: Stanford University Press.
- Hall ET 1976. *Beyond Culture*. New York: Random House.
- Heine SJ 2005. Where is the evidence for pan-cultural self-enhancement? A reply to Sedikides, Gaertner, and Toguchi (2003). *Jour of Pers and Soc Psych*, 89: 531-538.
- Hofstede G 1991. *Culture and Organizations: Software of the Mind*. London: McGraw-Hill.
- Holland R, Meertens RM, Van Vugt M 2002. Dissonance on the road: Self-esteem as a moderator of internal and external self-justification strategies. *Pers and Soc Psych Bul*, 28(12): 1713-1724.
- Iyiola O 2013. Social problems of tobacco marketing in southwestern Nigeria: A behavioral study. *Issues in Bus Man and Eco*, 1(4): 76-88.
- Jha P, Ramasundarahettige C, Landsman V, Rostrom B, Thun M, Anderson RN, McAfee T, Peto R 2013. 21st century hazards of smoking and benefits of cessation in the United States. *New Eng Jour of Med*, 368(4): 341-50.
- Keil M 1995. Pulling the plug: Software management and the problem of project escalation. *Man Infor Sys Quar*, 19(4): 421-447.
- Kothari CR 2004. *Research Methodology, Methods and Techniques*. 2nd Edition. New Delhi: New Age.
- Lakier JB 1992. Smoking and cardiovascular disease. *Amer Jour of Med*, 9: 7-11.
- Leary MR, Baumeister RF 2000. The nature and function of self-esteem: Sociometer theory. In: MP Zanna (Ed.): *Advances in Experimental Social Psychology*. Volume 32. San Diego: Academic Press, pp. 1-62.
- Leitch R 2006. *Cognitive Dissonance*. Washington: US Medicine.
- Louie AJ, Frisch D 1997. The Role of Cognitive Dissonance in Decision Making. From <

- tiarts. com/aaron/science/cogdiss.shtml> (Retrieved on 18 March 2014).
- Markus H, Kitayama S 1991. Culture and the self: Implications for cognition, emotion and motivation. *Psych Rev*, 98: 224–253.
- Monyeki KD, Kemper HCG, Twisk JWR 2010. Trends in obesity and hypertension in South African youth. In: JA O'Dea, M Eriksen (Eds.): *Childhood Obesity Prevention International Research, Controversies and Interventions*. New York: Oxford University Press, pp. 44-151.
- Pampel FC 2001. Cigarette diffusion and sex differences in smoking. *Jour of Heal and Soc Beh*, 42(4): 388-404.
- Redmond BF, Schmidt KC 2014. Self-efficacy and Social Cognitive Theories. From <<https://wikispaces.psu.edu>> (Retrieved on 2 December 2014).
- Savant S, Shetty D, Phansopkar S, Jamkhande A 2014. Electronic cigarettes: Ambiguity and controversies of usage. *Jour of the Col of Phy and Surg Pak*, 24(4): 279.
- Selamat MH 2012. Descriptive Research. From <<http://www.csnotes.upm.edu>> (Retrieved on 18 March 2014).
- Tavris C, Aronson E 2007. *Mistakes Were Made But Not By Me*. Orlando, FL: Harcourt.
- Taylor 2012. External Self-justification Involves the Use of External Excuses. From <<http://www.matthewtaylorblog.com>> (Retrieved on 18 March 2014).
- Trochim WMK 2006. Descriptive Statistics. From <www.socialresearchmethods.net/kb/statdesc.php> (Retrieved on 18 March 2014).
- U.S. Department of Health and Human Services 2014. *The Health Consequences of Smoking—50 Years of Progress. A Report of the Surgeon General*. Atlanta: National Center for Chronic Disease Prevention and Health Promotion.
- Wikipedia 2012. Self-justification. From <<http://www.en.wikipedia.org>> (Retrieved on 18 March 2014).
- Yang G, Ma J, Chen AP, Brown S, Taylor CE, Samet JM 2004. Smoking among adolescents in China: 1998 survey findings. *Intern Jour of Epid*, 33: 1103-1110.
- Zulu R, Siziya S, Muula AS, Rudatsikira E 2009. Association of advertising-promotion sponsorship-related factors with current cigarette smoking among in-school adolescents in Zambia. *Annals of Afric Med*, 8: 229-235.