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Addressing a Threat to the Healthfulness of Tomorrow’s Generation: The Case of Cigarette Smoking in Nigeria

Catherine O. Egbe¹, Inge Petersen¹ & Anna Meyer-Weitz¹

1) Discipline of Psychology, School of Applied Human Sciences, University of KwaZulu-Natal, Durban, South Africa

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Addressing a Threat to the Healthfulness of Tomorrow’s Generation: The Case of Cigarette Smoking in Nigeria

Catherine O. Egbe  
University of KwaZulu-Natal

Inge Petersen  
University of KwaZulu-Natal

Anna Meyer-Weitz  
University of KwaZulu-Natal

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Abstract

Cigarette smoking has widely received the attention of international and local health bodies. Efforts are being made towards curbing smoking prevalence globally with a view to reduce the health, economic and social effects of smoking in the society. While some developed countries are recording success in this effort mainly through stringent tobacco control policies and educating the public, Nigeria is yet to actively key into the WHO-Framework Convention on Tobacco Control (WHO-FCTC) which she signed in June 28 2004 (Nigeria: Report card on the WHO-FCTC, n.d.). With the stalling of the process of formulating a viable tobacco control policy in Nigeria through politics and politicking, it is important that other strategies which will help in reducing smoking prevalence especially among the youth be explored. This article looks at the psychosocial risk influences for smoking among Nigerian youth with a view to inform educational and psychosocial interventions that can help to reduce smoking uptake by the youth.

Keywords: tobacco control, youth, cigarette smoking, Nigeria
Tobacco smoking continues to be a global scourge having been implicated in many chronic diseases which affect vital organs of the human body like the heart, brain and lungs as well as the gastrointestinal, cardiovascular, respiratory, immune and metabolic systems (Campaign for Tobacco free kids, 2009).

Tobacco smoking however continues to be a challenge to world health bodies and statistics from the World Health Organisation (WHO) on the health consequences of smoking are staggering. There are about 1.3 billion smokers globally (Parkinson et al., 2009) and the WHO estimates that tobacco causes 8.8% of deaths globally with nearly six million people dying of tobacco related diseases annually around the world (WHO Factsheets, 2011; 2012a). In 2011, nearly 80% of the six million deaths related to tobacco use were said to occur in low and middle-income countries (LMICs) [Tobacco killing in LMICs, 2012]. Every eight seconds, someone is said to die from tobacco use (WHO, 2002). Unfortunately, of the nearly six million annual global deaths resulting from tobacco smoke, more than half a million are non-smokers who are exposed to second hand smoke [SHS] (WHO Factsheet, 2012). The WHO describes tobacco as the single leading cause of preventable death and disease globally (WHO, 2002). Yet, cigarette smoking continues to be entertained by individuals especially the youth globally. Young adults between aged 18 to 25 years have been noted as the highest risk group for smoking (Song & Ling, 2011).

Fortunately, efforts aimed at curbing the prevalence of smoking in many regions of the world are yielding good fruits in the developed countries but the same cannot be said of regions like Africa and Asia (Parkinson et al., 2009; WHO Factsheet, 2011; WHO, 2008). The WHO also reports that nearly 80% of all those who smoke globally are residing in LMICs (WHO Factsheet, 2012).

Africa currently accounts for 2% of the world’s population of smokers with more than 21% of the adult population in Africa being smokers (Corrao, Guidon, Cokkinides & Sharma, 2000; Iyiola, 2008). The question one might be quick to ask is; what is responsible for the increasing prevalence of smoking in developing countries in Asian and African? Evidence from research and literature (including documents from tobacco companies) has pointed to the fact that some of the factors responsible for this phenomenon is due to aggressive marketing and weak tobacco control legislation in many of these developing countries (Coombs, Bond, Van &
 Tobacco companies have been found to use diverse means to penetrate the markets in developing countries focusing their attention on the youth especially following the increasing impracticability of doing business in the West as a result of increasing constraints and shrinking markets in Western countries. The sales of cigarettes in the developing world is said to have increased by 80% since 1990 (Holden, 2000). Countries in the developing world are therefore seen as emerging markets which could make up for the loss the tobacco companies suffer in developed countries.

As mentioned earlier, tobacco companies have targeted the youth especially in the developing countries in their effort to continue staying in business (Harbour, 2011). Research has shown that about 80% of smokers began smoking as teenagers (Centers for Disease Control and prevention [CDC], 2012; US Dept of Health and Human Services [USDHHS], 2012). Among young teens aged 13-15 all over the world, one in every five smokes while 80,000 to 100,000 children worldwide initiate tobacco use annually (WHO, 2002). This therefore implies that most smokers begin smoking when they were still at school.

In Nigeria, smoking prevalence has been found to be as high as 31.9% among adults in the North-Eastern region (Desalu, Olokoba, Danburam, Salawu, & Isa, 2008). This prevalence rate is higher when compared with the 8.6% obtained from the national survey carried out in 2002 (Shafey, Dolwick & Guindon, 2003) and the 17.6% obtained among rural dwellers in the South-west region (Ayankogbe, Inem, Bamgbala & Robert, 2003).

Various research carried out to ascertain smoking prevalence among the youth in Nigeria have found the rate to be on the increase. The Global Youth Tobacco Survey carried out among secondary school students (aged 12-18yrs) in Cross River State (South-South, Nigeria) in 2001 showed a smoking prevalence rate of 9.7% among males and 5.7% among females. In a study carried out by Aghaji, Ekwueme and Omotowo (2007) on behalf of the International Development Research Centre (IDRC), the smoking prevalence rate among secondary school students (aged 12-18yrs) was found to be 15.7% for males and 9.8% for females. The World Report on the Global Tobacco Epidemic (WHO, 2009) shows smoking prevalence among Nigerian youth to be 3.5% as at 2008 but this could be an underestimation of current trends as Abuja where the study was carried out, is one of the only two states where tobacco smoking ban is currently
operational in Nigeria. However, Salawu, Danburam, Isa and Agbo, found a prevalence of 32.8% among adolescents in North-Eastern Nigeria in 2010. To corroborate this, a recent publication of Nigeria’s Tobacco Situational Analysis made available by the International Development Research Centre and Drope (2011) states the following:

With adult prevalence rates approaching at least 20% and increasing (and likely higher for youth), there is a clear need to address tobacco issues in the near term, especially in such a populous (>150M), varied (hundreds of distinct ethnic and/or linguistic groups) and poor country (p. 201).

Based on the above statistical figures, there seems to be an increase in the smoking prevalence rate of the youth in Nigeria.

The reasons for the increasing prevalence of smoking in Nigeria may not be different from those in other developing countries. It is however important to investigate context specific factors which may be fuelling the increasing prevalence. For the purpose of this paper, only some of the psychosocial risk influences for smoking among Nigerian youth are discussed.

**Psychosocial Risk Influences for Smoking**

The psychosocial risk influences for smoking would be discussed under two broad headings: intrapersonal and interpersonal (social) risk influences.

**Intrapersonal Risk Influences for Smoking**

Intrapersonal risk factors are usually intrinsic influences for smoking and they vary from individual to individual. Many of these factors tend to serve as ‘push’ factors for the youth towards smoking. In this paper, these factors have been grouped into traits/attitudes, behavioural skills and motivators.

**Personality Traits and Attitudes as Risk Influences of Smoking**

Traits and attitudes can be described as constructs which are intended to capture certain variations in the behaviour of individuals (Sherman &
Fazio, 1983). Though these characteristic features of an individual are considered intrinsic, they are usually externalised. Personality traits and attitudes therefore determine an individual’s behaviour to a very large extent (Terracciano & Costa, 2004). According to Sherman & Fazio (1983) both “attitudes and traits have served as within-person constructs intended to permit the prediction of later behaviour” (p. 308). Some personality traits and attitudes have been found to be closely associated with smokers. Though for various reasons, there are conflicting findings about the specific traits and attitudes found to have this association (Terracciano & Costa, 2004), it is important that a few of these findings be reviewed.

In a longitudinal study conducted in Finland, childhood hyperactivity was found to be correlated with both daily moderate and heavy smoking (Niemelä et al., 2009). Studies have also shown smoking to be associated with attitudes like aggressiveness, extraversion, sociability, risk taking, sensation seeking and with temperaments like anger (Bisol, Soldado, Albuquerque, Lorenzi & Lara, 2010; Dinn, Aycicegi & Harris, 2004). In their study investigating five personality traits (neuroticism, extraversion, openness, agreeableness and conscientiousness), Terracciano and Costa (2004) found that smokers were characterised by high impulsiveness, high excitement seeking, low self esteem and low deliberation. They also found a difference in extraversion and openness to experiences between smokers and non-smokers. Findings from a study by Evans et al. (2006) showed a positive relationship between sensation seeking and smoking among patients with Parkinson’s disease. Smokers have been found to exhibit higher impulsivity compared with non-smokers (Wing, Moss, Rabin & George, 2012). Personality traits like novelty seeking have also been found to be associated with both light and heavy smoking (Gurpegui et al., 2006). These studies have shown that there are certain personality traits that can be associated with those who are smokers. These may also be identified with those who may pick up smoking at a later age and can be classified as risk factors for smoking.

**Deficient Behavioural Skills as Risk Influences of Smoking**

Behavioural skills are life skills required by individuals to be able to adjust properly in their social environment. Life skills have been defined as “a set of abilities that pave the way for positive and useful behaviour” (Mardani,
Life skills help individuals to improve communication, boost the power of decision making, management and self awareness (Mardini et al., 2011). Research findings have highlighted the fact that certain patterns exist in the levels of these life skills among smokers. Some of these behavioural skills will be discussed in relation to findings in previous studies.

According to Sarafino (2002), many individuals who initiate smoking seem to lack general personal and social life skills. Such skills include assertiveness skills, decision making skills and techniques for coping with anxiety (Sarafino, 2002). It is proposed that individuals who have good levels of these social skills will not be overly influenced by peers or other factors to smoke. Mardini et al. (2011) note that life skills are related to psychological factors such as having a strong will and confidence, positive and healthy mental awareness, problem solving and decision making skills which are all positively correlated with high self esteem.

Findings from a meta-analysis of 27 studies show a strong support for positive association between refusal skills and smoking onset (Conrad, Flay & Hill, 1992). A study by Keer (2002) also found poor refusal skills and risk-taking tendency as some of the psychological determinants of smoking. Keer’s study also found that self-efficacy to refuse cigarettes was negatively related to high level of smoking in the environment. In other words, those who reported having higher levels of smoking in their environment had lower intentions of being able to resist cigarette offers successfully when compared with those not surrounded by smokers.

In a study by Francis, Katsani, Sotiropoulou, Roussos and Roussos (2007), attention problems and the presence of delinquent behaviour were found to be the main risk factors for smoking initiation among Greek adolescents. It is therefore evident that deficiency in life skills may be a risk factor for smoking initiation and perpetuation among youth.

Motivators for Smoking

Motivators for smoking are regarded here as factors which tend to push or pull the youth to initiate and/or perpetuate smoking. For the purpose of this paper, they have been group into psychological, physiological and social factors. The social factors will however be addressed under interpersonal risk influences for smoking.
Psychological Motivators for Smoking

Psychological factors that motivate young people to smoke include among others: anger, depression, worry/distress and stress. Psychological factors like these have been found to push young people towards smoking as a way or means of relieving themselves of life’s distresses (Shuaib et al., 2011). Various studies have also shown positive associations between these psychological attributes and being a cigarette smoker. A study by Bancroft, Wittshire, Parry and Amos (2003) showed that smokers’ moods are changed positively when they smoke. Magid, Colder, Stoud, Nichter and Nichter (2009) found negative affect (general distress and sadness) to be the most robust correlate of cigarettes smoking among college students independent of alcohol and marijuana use. In a study by Laws, Holliday and Huang (2007), smokers were found to more likely report experiencing feelings of anger, anxiety, low morale, depression and lack of motivation compared with non-smokers.

Further, a history of depression has also been found to increase smoking reinforcement in smokers irrespective of their mood (Perkins, Karelitz, Giedgow, Conklin & Sayette, 2010). Among Nigerian university students, a link has also been found between depression disorders and cigarette smoking (Adewuya, Ola, Aloba, Mapayi & Oginni, 2006). The cause-motivator link between depression as well as other negative affects and smoking has not been fully understood. It is somewhat difficult to ascertain whether smokers smoked to get out of depression (as a way of self medicating) or whether it is depression itself which makes people want to initiate or perpetuate smoking. Though Kear (2002) found depression to be one of the determinants of smoking, among Greek adolescents, Francis et al. (2007) found that smokers tend to score higher in scales measuring anxiety and depression. These researchers however suggest further investigation of the direction of the association between depression and smoking.

Findings from a study by Childs and de Wit (2010) showed that stress increases smokers’ desire to smoke though it did not change the number of cigarette smoked. Even though the link between psychological motivators for smoking and smoking behaviour might not be fully understood at present, it should be noted that past research have found some correlations. For example, smokers have been found to score higher in many scales
measuring negative affect, stress and depression (Magid et al., 2009). Researchers have also found that as the nicotine level in a smoker diminishes, smokers tend to show withdrawal symptoms, some of which are expressed as negative affect, stress and depression (Munafò & Araya, 2010).

**Physiological Motivators for Smoking**

Physiological motivators largely stem from the effect of nicotine on the body system. Smokers have been found to be more relaxed than non-smokers or smokers who were deprived of smoking (Nesbitt in Silverstein, 1982). It is also known that the relaxation felt by smokers is as a result of the calming effect of nicotine when ending withdrawal symptoms in smokers who are addicted (Silverstein, 1982). Nicotine, in itself is a psychoactive chemical occurring only in tobacco (Sarafino, 2002). It has been described as the major inducer of tobacco dependence (Cotton, 2011). As is characteristic of psychoactive chemicals, nicotine tends to have a relaxation effect when an addicted smoker has a high amount of the chemical in his or her system at a particular point in time. Due to the short half-life of nicotine, it is depleted at a fast rate resulting in the speed with which symptoms of withdrawal manifests in heavy smokers (Munafò & Araya, 2010). Some of the symptoms of withdrawal have been identified as anxiety and negative affect (Munafò & Araya, 2010) and it is therefore understandable that since these are signs of a low level of nicotine, they will be reduced or changed (as the case may be) by a re-introduction of nicotine into the system via smoking.

The ritual associated with lighting a cigarette and smoking it has been reported to give addicted smokers some pleasure (positive feedback) so much so that in itself, the ritual begins to serve as psychological or physiological reinforcements for the smoking behaviour (Flay, Snyder & Petraitis, 2009; Mitchell, Baildam, Bull, Clemonds & Marshall, 2005). In the view of Flay et al. (2009), once a person attempts a particular behaviour, the feedback experienced influences his/her future behaviour in that regard. Mitchell et al. (2005) describe these feedbacks as ‘neuromuscular habits’ which become associated with the ritual of smoking. In their view “how the cigarette is smoked, the kind of personal rituals involved, how and where the cigarettes are carried, the times and
circumstances under which they are used are called the secondary habits of smoking” (p. 73). Smoking after a meal and smoking before going to bed are therefore some of the neuromuscular habits some smokers have associate with their smoking habit. Cigarette therefore becomes associated with sleep and food. When this happens, the smoker begins to feel that it is actually the cigarette that eases digestion or aids sleep but this may not necessarily be so. Mitchell et al. (2005) suggest that identification of these secondary habits of smoking and devising strategies to deal with them are very important in achieving success at quitting.

**Interpersonal Risk Influences for Smoking**

The smoking behaviour of peers, family and role models have been found to be strongly associated with smoking (Skinner, Haggerty & Catalano, 2009; Yu, Hahm & Vaughn, 2010). The social predictors of smoking therefore include behaviour and beliefs of parents, peers and schools (Ogden, 2000). Social factors discussed under this section include peers and friends, family members, older adults and the school.

**Peer Influence on Smoking**

Peer smoking and/or approval of smoking have been strongly linked to adolescents’ initiation and perpetuation of smoking (Conrad, Flay & Hill, 1992). Peer smoking trends have also been found to be significantly associated with future smoking (Epstein, Botvin & Spoth, 2003). Many young adults have been cajoled into initiating smoking by their peers especially close friends. Peer pressure and having peers or close friends who are smokers have been widely reported to strongly predict smoking status (El-Amin, Nwaru, Ginawa, Pisani & Hakama, 2011; Erbaydar, Lawrence, Dagli, Hayran & Collishaw, 2005; Hussain, Akande & Adebayo, 2010; Mowery, Farrelly, Haviland, Gable & Wells, 2004). Comparing the influence of parents and peers or close friends on the strength of their prediction of smoking behaviour, Kear (2002) found a higher level of support for peer influence (72%) than the influence of parents (59%). This further calls for closer attention by educators and school counsellors to know how to help young adults resist the pressure from friends to smoke.
The Family Environment and Smoking

The smoking behaviour and attitude of family members have been found to influence smoking in young adults (Loureiro, Sanz-de-Galdeano & Vuri, 2010; Sarafino, 2002). However, different members of the family have different influences they exert on the youth with regards to smoking. A study by Hrubá and Žaloudíková (2008) found that parents and other relatives’ smoking behaviour led to a significant increase in the number of children who were determined to smoke in the future or who were considering to do so. Close parental attachment has also been established to be a strong protective factor against possible negative peer influence towards smoking and other risky behaviours (Francis et al., 2007; Caffray & Schneider, 2000). Results from the study by Caffray and Schneider (2000) show that negative relationships with parents, low family cohesion, poor communication between family members and low levels of social support, are all important factors which influence adolescents’ behaviour. A significant association between parental warmth and a decrease in the likelihood of an adolescent ever having smoked cigarettes, was also found in a study by Foster et al. (2007).

In a study by Loureiro et al. (2010), it was found that the influence of parents in two-parent households and single-mother households were slightly different concerning adolescents’ decision to smoke. Where the household had two parents, the father’s smoking habit tended to influence their son’s decision to smoke and the mother’s smoking habit influenced their daughter’s decision to smoke. In households of single-mothers however, the same-sex parent/child influence was no longer at play. Instead, the smoking habit of the cohabiting parent (irrespective of his/her gender) was influential in the child’s decision to smoke.

Further, one very rarely discussed influence on youth’s smoking behaviour from the family environment is that from older siblings. In their study, Francis et al. (2007) found that siblings’ smoking had a strong association with reported cause of some non-smokers picking up the habit by the age of 20. As highlighted by Francis et al. (2007), sibling modelling on adolescents’ smoking behaviour has not yet been fully explored in tobacco research. However, few studies carried out on this aspect of the family environment shows that sibling modelling is an influence that is as
strong (if not stronger) than that of parents irrespective of their parental smoking status.

The presence of other family members who smoke within a household has also been found to be a predicting factor of smoking behaviour in an individual (Imhonde & Aluede, 2007; Lader & Matheson, 1991; Ogden, 2000). For a family within a collectivist culture like the case in Nigeria, it is expected that this influence will be even stronger as a result of the close family ties they share. Imhonde and Aluede (2007) in their study of Nigerian adolescent smokers found that parental smoking status and family connectedness influenced smoking intensity of adolescents’ who are addicted to cigarettes. Family activities in Nigeria would involve children being sent on errands to purchase cigarettes (Odigwe, 2008) or clean up the smoking pipes of older members of the family who are respected and seen as symbols of authority. This close contact with these items (which are iconic to the young adults) could also lure these young ones into indulging in smoking either secretly as they come in contact with these items or when they grow older as a sign of having come of age (Feinhandler, 1986).

The School Environment and Smoking

It has been reported that more than 80% of all regular smokers had started smoking at 18 years of age (US Dept of Health and Human Services, 1994). This implies that most smokers started smoking when they were still at school. The school environment is composed of many social factors that could influence adolescents’ behaviour. Teachers, peers and the tone of the school are some of such factors. The influence of peers has been discussed earlier. However, teachers’ smoking behaviour during school hours has also been found to influence adolescents’ smoking behaviour (El-Amin et al., 2011; Poulsen et al. in Kayaba, Wakabayashi, Kunisawa, Shinmura & Yanagawa, 2005). Teachers therefore, need to be conscious of the influence of their behaviour on young children many of whom hold them as role models.

A study by Erbaydar et al. (2005) suggests that attending school has a protective effect on smoking initiation among adolescents. In addition, they found that better communication with teachers and being successful at school also decreased the risk of smoking. But this may not be the case where the teacher’s smoking status is known to the student. It is important
to note that peer influence is likely to be stronger in school than in any other social environment of the adolescent. This fact makes a case for school based interventions which will expectedly have a strong influence on the youth.

**Cigarette Smoking: Implication for Educational Intervention**

Thomas McKowen, a medical writer made the following assertion.

... It is said that the individual must be free to choose whether or not he wishes to smoke. But he is not free; with a drug of addiction the option is open only at the beginning, so that the critical decision to smoke is taken, not by consenting adults but by children below the age of consent. (Mitchell et al., 2005, p. 67)

Educational intervention can be used as a strategy that can augment any other tobacco control strategy by other sectors of the society. While, the school in Nigeria is still seen as an institution where the youth can still learn some morals no matter how few, it can also be a means with which to preserve the health of our future generation. Knowledge they say, is power. Specific educational interventions are highlighted further in the subsequent section in this paper.

**Solutions and Recommendations**

Smoking prevention cannot be achieved through the use of just one approach or a few approaches that end up addressing a few aspects of the problem or at best, delay smoking initiation for a few years. The authors therefore propose multilevel, multi-sectorial and multidimensional approaches as a comprehensive approach to fight tobacco in Nigeria. It is also important that a proposed comprehensive approach should involve each sector or partner in the fight against tobacco being responsible for specific aspects in order to avoid duplication and a waste of already scarce resources.

To address the intrapersonal influences for smoking, it is suggested that awareness be raised among children and youth beginning from the early school years and into undergraduate studies. Well structured tobacco
education should be incorporated into the school curriculum so as to equip children and youth with the right information on the negative effects of smoking on their health and well being. It is also important that children and youth be taught life skills such as decision making, coping and refusal skills at school. This will enable them withstand the pressure from peers to smoke as well as cope with various life challenges which have been found to push some youth to smoke. This will also be useful for the youth to handle many of the interpersonal risk influences identified in this paper.

To address interpersonal risk influences for smoking, there is a need to create awareness among the adult smoking population on how their behaviour serve to influence smoking among the youth. Interventions to curb smoking among the adult population will also invariably help to curb smoking among the youth at the long run. Smoking cessation programmes should also be put in place and promoted to encourage smokers of all ages to give up the habit. This can be carried out in the secondary tertiary institutions by the student counselling centres. Most people are introduced to smoking by other smokers. Therefore the less we have of active smokers, the less likely that people will be encouraged by them to initiate smoking. Tobacco free clubs can also be set up in schools to commit adolescents into making a commitment not to initiate smoking as well as providing the much needed psychosocial support they need in this phase of their life.

In addition, school level tobacco policy as well as anti-smoking curriculum may likely help to decrease the pressure adolescents face from peers towards initiating smoking at school (Moore, Roberts & Tudor-Smith, 2001). This is due to the fact that at the age when most smokers have been found to initiate smoking, they can be said to be unarmed with the right information so as to be able to make informed decisions about smoking (McKowen in Mitchell et al., 2005).

The school can therefore play a very vital role in preserving the health of our future generations if concerted efforts are made to discourage new entrants into the habit of smoking through educational and psychosocial interventions like awareness raising, building of life skills and other behavioural interventions. All these can be provided through the teachers, school psychologists and the school environment at large.
Conclusion

This paper has highlighted the psychosocial risk factors fuelling the habit of smoking especially among the youth. Literature searches were conducted between 2010 and 2012 mainly within Ebsco host databases and Google scholar. Literature retrieved highlighted the various issues associated with cigarette smoking among the youth. In this paper, a case has been made for the need to incorporate tobacco control in the school curriculum as well as the establishment of smoking cessation programmes and tobacco-free school clubs especially in tertiary and secondary institutions respectively. The need for the school environment to be guided by smoke-free policies is also mentioned. Awareness on the ill effects of smoking and the knowledge of how to avoid getting to start smoking are vital tools needed by today’s youth in order to avoid many years of quit attempts which may not be successful at the long run. Young people can then be empowered to resist the temptation to pick up the habit of smoking whether within the school or the family environment.

References


Bancroft, A., Wiltshire, S., Parry, O., & Amos, A. (2003). "It's like an addiction first thing... afterwards it's like a habit": Daily smoking behaviour among people living in areas of deprivation. Social Science and Medicine, 56(6), 1261-1267. doi: 10.1016/S0277-9536(02)00124-7


Catherine O. Egbe is currently a postdoctoral research fellow at the Discipline of Psychology, School of Applied Human Sciences, University of KwaZulu-Natal, Durban, South Africa. ORCID id: 0000-0001-5698-6866

Inge Petersen lectures in the Discipline of Psychology, School of Applied Human Sciences, University of KwaZulu-Natal, Durban, South Africa.

Anna Meyer-Weitz lectures in the Discipline of Psychology, School of Applied Human Sciences, University of KwaZulu-Natal, Durban, South Africa.

Contact Address: School of Applied Human Sciences, University of KwaZulu-Natal, King George V Avenue, Durban 4041, South Africa.
Email: egbe@ukzn.ac.za