Socioeconomic costs of tobacco use and caregivers burden: implications for comprehensive tobacco control

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Tobacco use kills primary and secondary smokers. While 7 million primary smokers die annually from tobacco use, more than 1.2 million non-smokers also die annually from being exposed to second-hand smoke⁴. Tobacco contains many cancer-causing toxins that harm every organ of the body. Smoking tobacco introduces nicotine and other chemicals, including numerous carcinogens, into the lungs, blood and organs, which causes coronary and non-coronary heart diseases; cerebrovascular disease; chronic obstructive pulmonary disease (COPD); pneumonia and cancers².

Most diseases caused by tobacco smoking cannot be managed by smokers alone. They require treatment by specialized healthcare providers such as a cardiologist, lung specialist, an oncologist and an informal caregiver. Social support from patients’ informal caregivers is indispensable during and after treatment.

The informal caregiver is defined as a care provider that bears the burden of assisting the patient with physical, psychological and emotional support from the time of diagnosis, during the treatment period, and after treatment³.

While caregiving may impact positively on the patient, it could also impact negatively on the caregiver who endures the physical, psychological, and emotional costs of care. The caregiver burden may lead to anxiety, depression and impaired quality of life. Although evidence on the health and economic burden of primary smokers has been widely documented, only a few attempts have evaluated the ‘caregiver burden’. In the present study, we assessed the types of burden perceived by informal caregivers and the factors associated with the caregiving burden.

Focus Group Discussions (FGD) were employed to generate data and information in order to to achieve the objectives of the study. The methodology is illustrated in figure 1. The study utilized purposive sampling to ensure diversity in diagnoses, age, gender, and socioeconomic background. Six (6) states which are known to have the highest prevalence of cigarette smoking based on the 2012 GATS survey were selected across the geographical region of Nigeria. Twenty (20) participants were chosen in each of these States for the FGD; Adamawa (North-East), Anambra (South-East), Kano (North-West), Kogi (North-Central), Lagos (South-West), Rivers (South-South). In terms of composition, each FGD had both older men and women (above 35 years) as well as youths (below 35 years), while minors (below 18 years of age) were excluded. Each FGD lasted 1 to 1.5 hours. The discussions were facilitated by a team of trained experts and rapporteurs. The facilitators and rapporteurs were selected based on their level of skills and knowledge about the subject matter, fluency in

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⁴ https://www.who.int/news-room/fact-sheets/detail/tobacco
³ https://www.mdpi.com/1660-4601/19/23/16304
the local language and the ability to conduct FGDs. This makes it easier for the facilitators and rapporteur to observe and record the interactions between different group members.

Figure 1: Illustration of the methodology

The qualitative data derived from the FGD revealed five themes ranging from economic cost - direct and indirect cost to social cost. Based on their experiences, respondents also provided advice and suggestions to the public, government and stakeholders. As a result, they believe their recommendations will help reduce the prevalence of smoking in society. The theme subjects are outlined subsequently.

Theme #1 Psychological Effect:
Different forms of psychological effects have been identified as the cause, as well as the hazards of smoking tobacco. Empirically, social and psychological factors influence people’s choice of smoking and continued use of tobacco. Other aligning factors that induce whether an individual becomes a regular smoker or otherwise include having friends or relatives who smoke and their parents’ attitude to smoking. For example, a respondent narrated what inspired him to smoke:

“I became a cigarette smoker through my grandpa, he used to send me to buy for him, if I buy like one pack, I will remove one out of it without his knowledge and keep it for myself. By doing that, I gradually became familiar with smoking up to the level that I use my money to buy for my personal use. As I am talking to you, I can consume 3 – 4 packs a day I know it is very dangerous to my health, but I can’t stop taking it (cigarettes”).

Contrary to the satisfaction expected by smokers, they often realize smoking only elevates the levels of tension and anxiety as well as depression. Nicotine has an instant and fleeting upbeat factor through the release of dopamine, yet, this swiftly fades and creates a withdrawal syndrome. Ultimately, this emulates the symptoms of anxiety and depression. The patient and his immediate family (caregivers) get psychologically and emotionally afflicted from the strain caused by the patient’s/smoker’s illness. Since most tobacco-related illnesses are contagious, the patient’s family are prone to isolating themselves from the patient or smoker. This is injurious to the mental well-being of both parties. As indicated by one of the caregivers, also a sister to a patient:
Theme #2 Stigmatization:
Literally, stigmatization is the general perception held by others that certain individuals affected by a particular condition (nicotine dependence/smoking) are socially undesirable. Two major concerns emanate from this situation of stigmatization. The first concern is self-stigma, in the sense that affected individuals (tobacco smokers) may internalize this public stigma and develop a negative feeling about themselves, resulting in self-stigmatization. Thus, self-stigma is self-labeling of oneself as someone with a socially unacceptable habit, which often leads to low self-esteem.

Most of the FGD participants identified “stigmatization” as the major challenge they faced in their community due to tobacco smoking. This demeaning consequence appeared to be more prominent among immediate and surrounding family members.

The majority of the caregivers who participated in the FGD affirmed this assertion. One of them caregivers interviewed disclosed that:

“My relative who had tobacco-related disease lost his self-dignity because of the issue of stigmatization. Even I and other relatives are being tagged as “relatives of a smoker”.

Another concern is how stigma associated with smoking leads to a late diagnosis of disease. Health workers are often liable in this regard as they blame the patients for their illnesses. As narrated by a female caregiver:

“My clients refused to go for normal or direct care because they are scared of what the physician might say and the cost of treatment”.

A caregiver also explained how his client avoids treatment due to stigmatization:

“My client prefers to look for alternative treatment instead of going straight to the hospital and that is because of stigmatization. He narrated his experience when he went to a hospital with his client and when his client called on the doctor to attend to him, the doctor screamed, “Sit down there, am I the one that asked you to smoke and have problems?”

Stigmatization, in the long-run has a ripple effect as it affects the mental well-being of the individual, thereby increasing the number of illnesses he has to battle with.

Theme #3 Reduced Productivity:
Empirically, an inverse relationship is said to exist between tobacco-related diseases and productivity. Tobacco-related diseases weakens an individual’s health which instigates absenteeism, early retirement and diminishes labour force in form of mortality. This process leads to a high dependency ratio, decreases GDP and intensifies the poverty rate in a given state.

The FGD responses indicate that smoking decreases the productivity of both the patient and caregiver. Like every other ill-health effect, most respondents stated that tobacco-related illnesses result in a significant decrease in their productivity. Some of the respondents asserted that as a result of the illness, they lose their job as well as other opportunities. As narrated by a caregiver:

“It really affected my business because I had to stay with my friend at the hospital instead of going to work, thereby making me lose money”.

Another respondent (smoker/patient), narrated how smoking reduced his level of productivity:

“What I used to do before is not possible for me to do it now. Once I start working, I become tired immediately. I am a bricklayer, I used to lay 200 – 250 bricks a day, but now the highest bricks I can lay now is 100 – 150 at most. Before, I can work the whole day without complaining, but the case is different now”.

Similarly, a caregiver also narrated how he lost his patient due to smoking:

“I had a patient who died at 42 years after diagnosis of lung cancer. The smoking behaviour of the patient also affected the wife, as she was scared of what the doctor might say and the cost of treatment”.

“My brother is the breadwinner of the family, his situation has affected family members’ finance, time and emotional well-being -- everyone is afraid to lose him”.

This shows that the externalities or social costs of smoking does not only affect the individual but also his close relation and caregivers. The anxiety, depression, emotional trauma is not only limited to the patient but also the caregivers (family, friends and colleagues).
The cuts in productivity or business activities translate into a financial strain on the affected family.

**Theme #4 Fall in Household Standard of Living:**
This theme emanates from the direct cost of tobacco consumption. Specifically, in Nigeria, tobacco consumption is more prevalent in the lower-income quintiles. As such, tobacco-related illnesses and accompanying economic costs will be frequent among them. Correspondingly, the cost of hospital admission for in-patients and hospital visits for out-patient for tobacco-related disease patients, force the impoverished into debt traps as well as stern poverty.

Responses from the survey revealed that, most often, money set aside to be expended on food, education, and other households’ needs has been shifted to healthcare. For instance, a female caregiver, who is a niece to one of the patients, explained that:

“Tobacco smoking affected his (patient) kids’ education because they were never trained in school, he always didn’t have enough money, he would rather use the money he has to smoke and drink with friends outside.”

One of the caregivers, who is the wife of the patient as well as a fish vendor, indicated that:

“I have used part of my capital to treat my husband. Our children dropped out of school as I could not afford to pay their school fees. Also, feeding has become an issue”.

Furthermore, there are propensities that the patient in the quest for healthcare may borrow or sell his/her property(s) in order to cover his direct cost of illnesses. This implies that the high economic cost associated with the healthcare burden of treating tobacco-related diseases can push the patient and his/her household into a vicious circle of poverty.

**Theme #5 Change of Physical Health:**

The discussions with the respondents across regions showed that the smokers/patients and as well as caregivers experienced a change in their physical health. Some of the respondents identified how their physical appearance changed, which included a change in body complexion. Others mentioned that they became less physically fit and were unable to participate in activities they excelled in before being diagnosed with diseases linked to tobacco use.

**Implications for Policy**

Caregiving for patients with tobacco-induced diseases is quite essential; it plays an important role in the recovery process and in improving patients’ overall health. However, caregiving is a difficult task, particularly for untrained caregivers (often family members) who bear the burden of caring for an individual with chronic health problems.

The physical, mental, and psychological health of caregivers have been found to suffer as a result of caring for patients with tobacco-induced diseases. Additionally, smokers and caregivers experience decreased productivity, which has a cascading effect. These findings confirm the necessity for comprehensive policy interventions to encourage tobacco use cessation, reduce secondhand smoke exposure, and prevent initiation of tobacco use particularly among young people.