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Impact of fuel subsidy removal on human security in Nasarawa State

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Abstract

Fuel subsidies have long been a critical aspect of energy policy in Nigeria, aimed at making fuel affordable for its citizens. However, the implications of these subsidies extend beyond economic considerations, significantly impacting human security in various regions, including Nasarawa State. This study examines the impact of fuel subsidies on human security in Nasarawa State, focusing on dimensions such as economic stability, health, environmental sustainability, and social well-being. The study critically examines the literature, exploring existing theories, empirical studies, and historical contexts related to human security and its ramifications. This study employed a cross-sectional research design. A well-structured questionnaire was used to collect data from respondents. It is an applicable design to sample opinions, attitudes, or feelings to estimate how oil subsidy removal impacts human security in Nasarawa state. It is advantageous because it does more than uncover data; it also interprets, synthesizes, and integrates data and points to implications and inter-relationships.

Keywords: Subsidy; Fuel Subsidy; Human Security; Subsidy Removal

1. Introduction

Human security refers to freedom from occurrences that threaten people's lives, safety, and property. It is defined as safety from threats such as starvation, disease, and oppression, as well as defence against unanticipated and damaging disturbances in routines of daily life (Johns, 2014). According to Frechette (2019), human security encompasses the things that people value across the globe, such as sufficient food, adequate housing, good health, education for the kids, protection from every form of violence, and a state where governance is devoid of oppression, but carried out with the consent of the people. Among other factors, a violent crime known as armed banditry, which involves robbing, killing, or sexually assaulting the victims (Okoli & Okpaleke, 2014), constitutes a grave threat to human security. Armed banditry relates to occurrences of armed robbery or other comparable crimes (Okoli & Ugwu, 2019). It refers to organised crimes such as rape, kidnapping, looting, livestock rustling, and village raids (Okoli & Ugwu, 2019). Armed criminal gangs that frighten, assault, and forcibly evict people from their property are responsible for carrying out this crime. Nigeria is not unique in its banditry experiences.

Fuel subsidy is a government discount on the market price of fossil fuel to make consumers pay less than the prevailing market price of fuel (Ovaga & Okechukwu, 2022). When subsidies are in place, consumers would pay below the market price per litre of the petroleum product. Globally, there are debates about fuel subsidies because of their huge amount and effect on citizens' welfare and a nation's fiscal health. The size of global fossil fuel subsidies keeps increasing, and in 2022, it was estimated at \$1 trillion from \$325 billion in 2018, according to the International Energy Agency. This amount is significantly higher than the global aid value, estimated at \$204 billion in 2022 and larger than the combined government revenue of developing countries. This has led to calls for the removal of global fossil fuel subsidies so that

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the saved funds can be channelled to assist the poor and vulnerable in need of humanitarian assistance in developing countries (Couharde & Mouhoud, 2020; Ozili & Ozen, 2021).

However, removing fossil fuel subsidies is contentious because of the argument that fossil fuel subsidies are a form of aid. After all, it makes fuel more affordable for the poor. Despite this favourable argument, a large amount of literature documents the negative consequences of fuel subsidies, which include increasing air pollution and greenhouse gas emissions (Sweeney, 2020), road congestion (McCulloch, Moerenhout & Yang, 2021), road accidents and premature deaths (Parry et al., 2021), foregone tax revenue (Sweeney, 2020). It increases inequality between the poor and the rich (McCulloch et al., 2021). However, policymakers in many countries are reluctant to remove fuel subsidies and to implement fuel subsidy reforms because such reforms may result in a significant increase in fuel or electricity prices, which could lead to economic hardship for low-income and poor citizens, which might lead to civil unrest, massive protest and increase the risk of a revolution or the overthrow of the incumbent government.

In Nigeria, fuel subsidies were first introduced in the 1970s as a response to the oil price shock in 1973. It was partially removed in 1986. Since then, the fuel subsidies have been in place. In 2012, the government abruptly removed the fuel subsidy. The removal led to massive protests intended for the government to reinstate the fuel subsidy it had removed. The government subsequently reinstated fuel subsidies in 2012 due to the massive protests. Since then, fuel subsidy payments in Nigeria have grown enormously. In 2022, fuel subsidies reached ₦4 trillion (US\$6.088 billion), 23 percent of the national budget of ₦17.126 trillion (US\$25.87 billion) in 2022. As a result, Nigeria could no longer sustain fuel subsidies in 2023, and the government announced that the fuel subsidy would be removed in June 2023. Recent evidence in the Nigerian literature shows a mixed effect of fuel subsidy. While some studies identify the benefits of fuel subsidies and call for transparency in the administration of fuel subsidies, other studies highlight the negative consequences of fuel subsidies and advocate for their total removal. For example, Omitogun et al. (2021) show that removing fuel subsidies might reduce the Nigerian economy's carbon emissions.

According to the National Bureau of Statistics (2023), Nasarawa State has a poverty rate of 71.4%. The removal of fuel subsidies was expected to increase the cost of transportation, food, and other necessities. This increased cost of living was expected to worsen the state's human security situation. Recent studies have shown that removing fuel subsidies can hurt human security. A study by Dauda, R., Adeleke, I.A., and Suleiman (2021) found that removing fuel subsidies could exacerbate poverty and insecurity in Nasarawa and increase the risk of social unrest. The study also highlighted the need for policymakers to prioritize the protection of vulnerable populations in light of substantial economic policies such as fuel subsidy removal.

2. Conceptual Clarification

2.1. Concept of Subsidy

According to the Academic Dictionary of Economics (2006), a subsidy can be defined as a cash incentive given by the government to the industry to lower the price of the concerned industry's product and raise its competitive power. This may counterbalance an importing country's government's imposition of customs duties (like protection). One important objective of subsidy is to keep its prices below the cost of production. According to the World Bank (1997), a fuel subsidy is any government policy aimed at reducing the energy consumed by citizens relative to what the price would have been without such policy. Fuel subsidy is a government program created to reduce how much Nigerians have to pay for petroleum motor spirit (PMS) and Automotive Gas Oil (Diesel) and to protect the citizens from crude oil volatility on the international market. A subsidy or government incentive is a type of government expenditure for individuals, households, and businesses to stabilize the economy. It ensures that individuals and households are viable by accessing essential goods and services while allowing businesses to stay competitive. Subsidies promote long-term economic stability and help governments respond to economic shocks during a recession or in response to unforeseen shocks, such as the COVID-19 pandemic Ayanna et al., (2022).

Subsidies take various forms— direct government expenditures, tax incentives, soft loans, price support, and government provision of goods and services. OECD (2023), For instance, the government may distribute direct payment subsidies to individuals and households during an economic downturn to help its citizens pay their bills and stimulate economic activity. Here, subsidies act as an effective financial aid issued when the economy experiences economic hardship. They can also be a good policy tool to revise market imperfections when rational and competitive firms fail to produce an optimal market outcome. For example, in an imperfect market condition, governments can inject subsidies to encourage firms to invest in Research and Development). This will not only benefit the firms but also produce some positive externalities, such as benefits to the industry to which the firms belong and, most importantly, society. Clements, et al, (2023).

2.2. Fuel Subsidy

Fuel subsidies were introduced in Nigeria in the 1960s to ensure an overall increase in social welfare aimed at helping the poor to utilize the country's resource advantages (Isihak & Akpan, 2012). It was essentially in the form of implicit subsidies where the demand and supply are subjected to a subsidy and price fixing effect (Adagunodo, 2013). Since its establishment in 2003, the Petroleum Products Pricing Regulatory Agency (PPPRA) has calculated the number of subsidies paid to importers. This subsidy represents the difference that the government pays between the domestic fuel pump price and the international fuel price after calculating the landing cost, distribution cost, and others. The objectives of this fuel subsidy as a policy range from economic objectives, such as the strengthening of industrial growth and expanding domestic consumption, to welfare objectives, such as the expansion of energy access for poor households, and then to political considerations in terms of distribution of oil rents in resource-endowed countries. However, despite these objectives, energy subsidies negatively affect the economy. In addition to being wasteful and inefficient, they also frustrate efforts at tackling climate change. In Nigeria, for instance, fuel subsidies distort the market, encourage smuggling activities, hinder investment plans in the energy sector and enhance corrupt practices.

Given the debate generated by the call for fuel subsidy reform, attempts have been made to examine how these energy subsidies impact the economy. The aim has been essentially to educate citizens on the urgent need to reform the nature of these subsidies. These impacts are often assessed based on the economic, social (welfare), and environmental implications. The economic cost considers the fiscal burden of large and increasing subsidy payments on the economy.

2.3. Security

The meaning of security is ambiguous as its scope continues to expand daily. The concept's elastic nature attracts different meanings and views. Security is an important concept that every human person desires, and it has one or two meanings, though it defies precise definitions. This accounts for the position of Barry Buzan (1991), who describes security as an ambiguous and multidimensional concept in which military factors have attracted inappropriate attention.

Security involves assuaging any threat to people and their precious values. This is why Buzan asserts that security is about freedom from threat, the ability of states to maintain independent identity, and their functional integrity against forces of change, which they see as hostile. At the same time, its bottom line is survival (Bodunde et al., 2014). From the preceding, security is generally agreed to be about feeling safe from harm, fear, anxiety, oppression, danger, poverty, defence, protection, and preservation of core values and threats to those values.

2.4. Human Security

Human security is broadly defined beyond the absence of violent conflict. It entails ensuring everyone has the opportunities and possibilities necessary to realize their full potential, as well as effective governance and access to health care, education, and human rights. Actions taken in this regard are crucial to encourage economic growth, eradicate poverty, and deter violence. The interrelated components of human security and, as a result, national security are freedom from want, freedom from fear, and freedom to leave behind a healthy natural environment (Anna, 2023). The preceding indicates that human security safeguards individuals against grave and widespread hazards and circumstances (United Nations, 2009). It entails employing procedures that capitalize on people's assets and goals—human security ties together the human dimensions of progress, rights, and security. As a result, it is an interdisciplinary concept that demonstrates the following characteristics: cross-cutting, comprehensive, all-inclusive, contextualized, and focused on prevention. Being a people-centered concept, human security makes the individual the focus of analysis. As a result, it specifies the moment this is no longer practicable and considers a wide range of circumstances that put life, livelihood, and dignity in peril. Human security is likewise built on a multi-sectoral view of vulnerability. Hence, ensuring human security necessitates a broader understanding of hazards and considers various issues, including those that impact one's personal, community, economic, food, health, and environmental security (Hussein et al., 2004).

3. Theoretical Framework

3.1. Routine Activity Theory

The routine activity theory was first proposed by Marcus Felson and Lawrence Cohen in 1980. Felson and Cohen argued that crime results from three elements co-occurring in time and space: motivated offenders, suitable targets, and the absence of capable guardians. The routine activity theory focuses on the study of crime as an event, concerning its relation to space and time and emphasizing its ecological nature and implications, in contrast to theories of crime

causation that link crime to psychological, biological, or social elements. Instead of emphasizing the traits of the criminal, the theory concentrates on the features of crime. So, the environment affects the likelihood of crime. Therefore, the routine activity theory can be regarded as a component of crime prevention theory. According to Cohen and Felson (1979), the convergence of three crucial elements—a motivated criminal, suitable targets, and the absence of a capable guardian—at a particular location and time causes crime (Siegel, 2005). A motivated offender is driven to commit a crime and is ready and eager to do so. A potential target is a person or item that the offender might threaten. Felson's "targets," as he termed it, were victims. A capable guardian is someone who, if present, could prevent a crime from occurring. Guardianship could be provided by police patrols, security guards, observant workers, coworkers, friends, or neighbors, among others. According to the routine activity theory, offenders are more likely to commit crimes partly because of their daily activities. Without adequate supervision, a motivated offender's routine activities and movements could bring them into contact with a vulnerable target or asset.

4. Empirical Review

4.1. Impact of Fuel Subsidy Removal on Human Security

Harring et al. (2023) analyzed cross-country attitudes towards fossil fuel subsidy removal. They found that the public would have positive attitudes towards subsidy removal if there were optimal use of the saved fiscal revenues. In Malaysia, Chatri (2014) assessed the economy-wide effect of gas subsidy removal in the power sector and found that gas subsidy reduction led to an increase in the price of electricity followed by a decline in demand for electricity by other economic sectors and a decrease in gross domestic product. Antimiani et al. (2023) showed that fossil fuels are still highly subsidized in EU countries, and there are deliberations to remove fossil fuel subsidies and reuse the revenues to foster the technological transition to a sustainable and decarbonized EU economy. Sampedro et al. (2017) also argued that fossil fuel subsidy is a barrier to tackling climate change in the EU because it diverts investment away from clean energy sources, and fossil fuel subsidies amounted to US\$233 billion in 2014, which is four times the amount of subsidies allocated to promote renewable energy. However, they showed that fuel subsidy removal would give rise to only a small reduction in CO₂ because people would switch from fuel to coal and gas.

Ibekwe, Udoh, and Olawoyin (2017:1) credit a Nigerian Corruption Survey 2017 conducted by the National Bureau of Statistics Report with estimating the value of bribes paid to public officials by Nigerians in a year is N400 billion, the equivalent of \$4.6bn in purchasing power parity. This sum equals 39 per cent of the combined federal and state education budgets in 2016. The average sum paid as a cash bribe in Nigeria is approximately N5,300. This means that every time a Nigerian pays a cash bribe, he or she spends an average of 28.2 per cent of the average monthly salary of N18,900. Even the Nigerian Police Force, the judiciary and the prosecutors, which are meant to tackle corruption, hence fighting poverty and threats to human security, are adjudged respectively by the report as the most corrupt public institution.

Nwafor, Ogujiuba, and Asogwa (2006) employ a computable general equilibrium analysis. Their study digs into whether subsidy removal disproportionately affects the economically vulnerable segments of the population. This research illuminates the intricate balance between fiscal policy, subsidy removal, and social equity, indicating that while subsidy removal can have fiscal implications, it is crucial to consider its distributive effects. Also,

Laska et al. (2020) prepared a paper that analyses the federal legislation on college food insecurity and pandemic-related stimulus bills and their consequences for future policies and practices. From the study, surveillance data on college food insecurity in the coming years has recently been confirmed by the National Center for Education Statistics. The authors also argue that other pressing research needs include robust longitudinal cohort studies quantifying the short- and long-term effects of food insecurity, including health, academic and economic results, as well as, perhaps more significantly, rigorous assessment of natural experiments and controlled intervention trials, to effectively inform policy efforts (Laska et al., 2020).

Research by Xu et al. (2016) examined the perceptions of stigma resulting from food insecurity faced by residents in inner-city communities, also described as a food desert in Lansing, Michigan. Sixty inner-city residents were asked about their difficulties supplying their families with nutritious food. Four forms of structural barriers that contributed to the experience of stigma were found in the analysis. One surprising finding from this study is that women are perceived to experience more stigma in general relative to men, while men perceive more stigma only in terms of health than women. In addition, across all stigma dimensions, White residents scored higher than non-White minorities.

A cross-campus collaboration was examined by Waity et al. (2020) to evaluate levels of student food insecurity, identify factors contributing to an increased risk of food insecurity, and determine how to address food insecurity in 13

institutions in the United States. It is suggested from the study that institutions, in their effort to improve student success, may also consider improving access to student food, which will give the same result. The authors provide a concrete example of how one school, a faith-based group, and a non-profit organization outside the university partnered with several universities to open a food pantry to fix some of the previously mentioned food insecurity problems.

Regan (2019) reviews the perception of food insecurity from a sociological perspective based on economic insecurity and material hardship among college students in the United States by reviewing previous studies. The analysis focuses in detail on the scope and depth of research among college students on food insecurity, how it is assessed, the various methodologies of researchers to quantify it, and areas of interest. The study found that food insecurity varies by form of institution, demographic characteristics, and its health and academic outcomes associations. The review also states that there is significant space for future study in this area, from continued discussion of socio-demographic patterns in student food insecurity that more deliberately includes non-traditional students and students with children, as well as working to quantify food insecurity among students at different points in time using varied reference points.

Silva et al. (2015) examined the disadvantages of food and housing that could hinder academic performance. The survey results showed that almost a quarter of the students encountered some degree of food insecurity. This research found that experiencing food and housing insecurity harms students' academic success, attendance, and class completion. Despite slight limitations, this survey allowed a better understanding of the housing and food needs of the diverse and urban student population.

Owens (2020) assesses the prevalence and determinants of food insecurity during the COVID-19 pandemic among university students in the United States. Using a multi-step approach to food security assessment, the authors found that about one in three college students faced food insecurity during the last 30 days. Although food insecurity in non-student US households since the COVID-19 pandemic has risen to a similar degree, it is worth noting that many college students do not qualify for many federal and state safety net services (expanded SNAP benefits and federal stimulus). As a result, and without immediate help, college students could be disproportionately affected by food insecurity. According to the report, as a direct result of the COVID-19 pandemic, the two strongest predictors of food insecurity in college students were shifts in living arrangements or lack of jobs. To alleviate food insecurity among college students during the COVID-19 pandemic in the United States, a strong, detailed policy response is therefore required.

Purdam et al. (2015) analyzed the debate on food aid and the demonization of those living in poverty, the extent of hunger, and the experiences of food bank users in the United Kingdom. The case highlighted the wide number of people who use food banks, including families, the elderly, and the workforce. The food aid survey indicates that food poverty is more severe when assessed regarding food aid providers than would be indicated by an estimation based on the number of people registered using Trussell Trust-supported food banks.

An empirical study was drawn up by Lambie-Mumford (2018) to argue that the growth and popularity of food banks is the embodiment of a larger political-economic trend of social policy change that has dramatically accelerated since 2010 and included reinterpretations of the causes and responses to poverty. It illustrates the capacity of food banks as a lens for challenging the ramifications of these policy changes concerning the significance of systemic determinants, the inadequacy of relying on ad hoc privatized welfare programs, and the growing incorporation of food banks into local welfare landscapes. According to Mumford (2018), involving state practitioners in referring or signing individuals for assistance to food banks raises the issue of how often food bank vouchers are becoming a regular feature of the UK Social Security and Social Care administration.

Whatnall et al. (2019) examined the food insecurity level among Australian university students and determined which food insecurity is predicted by socio-demographic and student features. From the analysis, forty-eight percent of participants were food insecure. Compared to their parent's home and undergraduate compared to postgraduate students, food insecurity was higher among students living in rental accommodations.

Bakar et al. (2019) found an important association between food security status and financial availability, time constraints, scholarship, academic program, and parent income (2019) among university students in Pahang, Malaysia. According to the report, one of the students of the Allied Health Sciences programs, which also had the highest number of food-deprived students, was the largest proportion of beneficiaries of PTPTN loans. In comparison, medical faculty students, most of whom were JPA scholarship recipients, were at the lowest level of food insecurity because they earned more support than students from PTPTN. In addition, students also had no access to adequate campus food storage and preparation facilities to prepare their meals, which could have helped minimize their food costs. The circumstances make it difficult for them to overcome the situation for all major food security components, namely accessibility and

availability, including the use of food. Tackling food insecurity should, therefore, be one of the priorities for university administrators and relevant policymakers.

Asare et al. (2020) argue in support of fuel subsidy removal and that the revenue gained from removing fuel subsidies could provide additional resources for the government to respond with immediate interventions to address the COVID-19 crisis and enable the government to shift resources into more productive spending for long-run post-COVID recovery and resilience (Ozili & Arun, 2023). Other studies highlight the consequences of fuel subsidy removal. Umeji and Eleanya (2021) argue that Nigerian oil wealth has not translated to an improved standard of living despite the introduction of fuel subsidies and that fuel subsidy removal could have severe consequences, which can be mitigated by transparency on the part of the government in spending the funds saved from fuel subsidy removal for infrastructural development. Also, Ovaga and

Atoyebi, Kadiri, Adekuyo, Ogundeji, and Ademola (2012) researched the impact of fuel subsidy removal on agricultural sector output. The study employed Spearman's rank correlation and observed a positive correlation between fuel subsidy removal and agricultural output prices. This implies that removing fuel subsidies would increase the budgetary allocation to the agricultural sector, thereby increasing agricultural products. The researchers thereby recommended that the government introduce a cushioned effect through the use of savings from the fuel subsidy removal on the agricultural sector and to fast-track the maintenance of the nation's refineries.

Balouga (2012) assessed the political economy of the subsidy removal and found out that the average Nigerian for whom the subsidy was initiated had not significantly felt the fuel subsidies. Adagunodo (2013), in his study, examined the removal of fuel subsidies in Nigeria as an economic necessity and a political dilemma. In his research, he concluded that the subsidy funds could lead to major development gains for the country if implemented correctly. It will also create space for Nigeria to develop refinery capacity, increase its potential revenue from the oil sector and create jobs.

Abdulkadir et al. (2020) evaluated the impact of petroleum subsidy removal on some socioeconomic features of households in Maiduguri town by employing descriptive statistics and a simple regression method; the study result revealed that households' features were related to petroleum subsidy removal. The result also found that the respondents perceived all the approaches adopted by the government to cushion the effects of petroleum subsidy removal as a step on the right path.

In another investigation conducted by Akande (2017) on "enlightenment to the effect of petroleum subsidy removal in Nigeria, the study employed a linear function method to examine the data and found that an increase in petroleum pump price hurts the standard of living of the people, since petroleum is an indispensable factor for transportation of major commodities such as agricultural product and other market product". Likewise, Osagie (2012) investigated "the impact of petroleum subsidy removal on socio-economic development of Nigeria between the periods 1980-2012 using a price pass-through model, and exposed that the petroleum subsidy removal does not have a short run impact on the social well-being of people. However, the long-run impacts of this policy revealed that the deregulation of the downstream sector will eventually lead to imminent economic development in Nigeria".

Hashim (2021) studies "the economic implication of fuel subsidy removal in Nigeria; the study revealed the growing antagonism from people towards the removal of fuel subsidies; the study also discovered that the Nigerian oil sector was characterized by gross corruption, insufficient supply, smuggling, and inefficiency. Hence, the study recommends constructing more refineries to make the product more available to the people at an affordable pump price".

Babatunde et al. (2019) studied "the macroeconomic implications of oil price shocks and Nigeria's extant fuel subsidy regime, using a New-Keynesian DSGE estimation model. The results show that oil price shocks generate significant and persistent impacts on the product output; another result also reveals that fuel subsidy removal leads to higher macroeconomic instabilities and generates non-trivial implications for the response of monetary policy to an oil price shock".

Umeji et al. (2021) examine "the effect of the fuel subsidy removal on the Nigerian poor and its overall benefit to the Nigerian economy using the descriptive research design method. The paper noted that while the poor will suffer more in the form of higher transport fares and the increased prices of food items and other commodities, subsidy removal is in the overall interest of the whole economy as funds will be channelled to improving infrastructural amenities, especially in the health care, education and transport sectors".

Adewunmi et al. (2014) conducted "a study on the impact of the fuel subsidy removal on the socio-economic development in Nigeria. Using a price pass-through model, the study employed the error correction model to investigate

both the short and long-run impact of fuel subsidy removal on socio-economic development in Nigeria using data from 1980 to 2012. The study, therefore, discovered that removing fuel subsidies does not have a short-run impact on the social well-being of Nigerians. However, the long-run impacts of this policy tell a genuine story, as it was revealed that the deregulation of the downstream sector will ultimately lead to future economic development of the country”.

5. Conclusion

The study has highlighted the significant implications of fuel subsidies on human security in Nasarawa State, Nigeria. Fuel subsidies, while aimed at making energy more affordable, have far-reaching consequences that extend beyond economic dimensions, impacting social well-being, health, and environmental sustainability. The removal of fuel subsidies, although intended to redirect funds towards more impactful developmental projects, has resulted in increased cost of living, exacerbating poverty and insecurity and raising concerns about social unrest and economic instability.

The findings indicate that while fuel subsidies provide immediate financial relief to consumers, they also contribute to long-term economic inefficiencies and environmental degradation. The study underscores the importance of considering the holistic impact of fuel subsidies, particularly on vulnerable populations, and the need for comprehensive strategies that address the root causes of human insecurity in the region.

Recommendation

- Implement targeted social protection programs to cushion the impact of fuel subsidy removal on vulnerable populations. These programs should include direct cash transfers, food assistance, and subsidized transportation to help mitigate the increased cost of living.
- Nigeria should divert its focus on agriculture during this period. The federal government should focus more on increasing its agricultural exports of cash crops and livestock.
- Petroleum subsidy removal should be postponed, domestic refineries should be renovated, and new refineries should be built well-equipped and functioning.

The Federal Government should establish an independent body or strengthen existing bodies (FRA, 2007) to investigate the country's mismanagement of funds and lack of accountability.

Compliance with ethical standards

Disclosure of conflict of interest

All of the authors have declared that they have all participated in the design, execution, and analysis of the study and that they have approved the final version. Additionally, there are no conflicts of interest in connection with this paper, and the material described is not under publication or consideration for publication elsewhere.

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