

BUILDING CONTROL AND ENFORCEMENT OF LAND-USE REGULATIONS: PREVALENCE AND CHARACTERISTICS OF ASSULTS TARGETING DEVELOPMENT CONTROL OFFICERS IN OGUN STATE, NIGERIA

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ABSTRACT

Violence against Development Control Officers (DCOs) and injuries sustained from assaults are frequent occurrences but have been hidden from empirical research. Other than the police, there is a shortage of studies on violence against regulation enforcement officers. This study analyzes the results of a survey to examine the occurrence and characteristics of assaults experienced by DCOs in Nigeria. Using Ogun State as a case study, the 20 zonal Physical Planning and Building Control Areas represent clusters from which at least a respondent was randomly selected. The study used a mixed-method approach to analyze the data. Although more severe assaults resulting in wounds are relatively rare compared to less serious ones, findings show that assault is a regular occurrence against persons employed as DCOs. Results link the frequency of direct personal contact with people to the increasing vulnerability of DCOs to assaults. The logistic regression results show that assaults are more common to female than male DCOs, and may be common for those with less skill on the job. In conclusion, there is a prevalence of violence against DCOs in Nigeria. Collaborative efforts by the State and non-State stakeholders are therefore needed to ensure the safety of DCOs and improve the quality of land use and the built environment.

Keywords: Assaults, Building control agency, Construction management, Development control officers, Land-use regulation,

1.0 INTRODUCTION

Law enforcement is considered one of the riskiest professions (Biere, 2017), and it remains so. It is considered to be a dangerous career, not only while undertaking enforcement duties but also from the possibility of being assaulted by encounters with people (Tuttle, 2019). Oftentimes, law enforcement is synonymous with the police department. However, there are other agencies of the state that perform law enforcement roles. One such is the physical planning and building control agency. This state department consists of several professionals in the built environment, such as builders, town planners, architects, surveyors, and civil engineers, among others.

It has the task of regulating and maintaining law and order regarding building and the use of land. Its functions range from enforcing building codes and urban planning policies of the federal government to administering state and local land use plans. (Badiora & Bako, 2020). Its officers (DCOs) act as executors of building codes, land use regulations and planning laws, ensuring that construction approvals are allowed only when developers fulfill relevant

regulations guiding the area. Besides, they perform routine on-site compliance checks during building construction. This is done to ensure the construction is in tandem with the circumstances under which the construction approval was ratified, and any applicable rules that apply (Badiora & Bako, 2020). These functions come with many risks, as civilians may think such an agency lacks the legitimacy to enforce specific laws. Hence, they put up violent resistance.

While previous studies (e.g. Dawson *et al.*, 2017; Zhou *et al.*, 2018; Maguire 2018; Lawrence *et al.*, 2018; Siegel *et al.*, 2020; Elvegård & Almvik, 2024) reported that the threat of assault by police, social services, and health personnel is two times for employees in other professions. Personnel of development control agencies are also subjected to higher levels of risk as a result of their daily encounter with the public. However, most everyday encounters do not usually end in a DCO being attacked. Still, some happenings can put DCOs in a condition where they are to react to a person or group of persons who may become ferocious and, as a result, expose DCOs to the risk of being assaulted and injured. In March 2023, for instance, DCOs from the Lagos State Physical Planning Permit Authority and the Lagos State Building Control Agency were attacked by hooligans while on development control and enforcement actions. The officials were attacked with dangerous weapons and sustained various degrees of injuries, including head injuries (Idowu, 2023). It is the prospect of being assaulted and the volatility of such attacks that distinguishes the working environment of a DCO from that of other professions.

Despite much evidence, violence against the staff of physical planning and building control agencies remains less researched compared to that of the police, social service workers, and health care personnel. Indeed, there is a shortage of studies on violence against enforcement officers other than the police. To date, no study has assessed violent assaults on DCOs or analyzed the possible linkages between socioeconomic and demographic factors, the levels of violence inflicted on DCOs in various geographical settings, and how they impact assault incidence. Compared to other aspects of civil and public services, such as the police, health, and social work, not much is known about the occurrence and characteristics of assaults against DCOs, as fewer studies exist on this subject matter.

Most literature on development control tended to focus on physical development processes and urban planning practices (Vivan, Kyom, & Balasom, 2013; Adeyemi, 2016; Avogo, 2016; Adeyemi *et al.*, 2023) and probably, DCOs corruption (Chiodelli & Moroni, 2015; Chiodelli, 2018; Badiora, 2020; Badiora & Bako, 2023). However, the increasing rate of assaults on DCOs raises several concerns and represents a fundamental form of violence for the built environment practitioners, researchers, and policymakers to understand. This study was therefore undertaken to understand the incidence and characteristics of assaults experienced by DCOs in Nigeria, how this might be prevented, and how DCOs may be best supported. Among others, the research questions that formed the basis of the research were: What are the experiences of assaults among DCOs in the study area? Where, when and under what circumstances do these assaults happen? What are the socio-economic and demographic factors influencing assaults on DCOs?

The impact of assaults on DCOs, as well as the physical planning and building control agency, should not be disregarded. Violence against DCOs can result in essential costs for agencies and, thus, citizens and public funds. These include the cost incurred for medical treatment of

injuries, emotional and physical well-being, and disrupted resources when staff are on leave. Costs also include possible losses in agency-community and agency-staff relations, including a decline in connection to the agency, lack of an aspiration to continue on the job, and a decline in professional performance.

Apart from the social and financial impacts of assaults on DCOs, the town planning goals of protecting the environment and safeguarding the water, air, land, forest, and wildlife, as enshrined in Section 20 of the 1999 Constitution of Nigeria, will not be realized. Besides, this form of violence is important to understand because it reflects, to some extent, an attack on the rule of law and disobedience of the justice system. For these reasons, physical planning and building control agencies, police, policymakers, and the general public would benefit from this study by understanding the prevalence and characteristics of indecent assaults being experienced by DCOs.

To develop this article further, the next segment summarizes the literature review, and the following segment clarifies the methodology adopted to collect the data used in this study. The third segment discusses the survey results, while section four is the conclusion.

2.0 LITERATURE REVIEW

Around the world, public officials are regularly targeted for violent attacks. Building and development control officers, police, nurses, caregivers, doctors, and local civil servants, among others, come under violence by a wide range of means. While there is a lack of studies that analyze the evidence around assaults on DCOs, there are several studies that examine issues on other civil public servants. Thus, the purpose of this section is to provide an appraisal of previous studies on the prevalence and characteristics of assaults experienced by workers generally.

On the types and seriousness of violence, previous findings show that attacks with no injury were more common among workers compared to attacks causing wounds. For instance, most police victims of assaults received only slight wounds that did not require being hospitalized (Den Heyer, 2023). Also, two-thirds of assaults against physicians in England are pushed with no severe wounds (Elston *et al.*, 2002). Also, a study of nurses' assault involvement showed that attacks usually involved being punched, bitten, pushed, and kicked (Hopkins *et al.*, 2014). In their work on assault cases against health workers, Cashmore *et al.* (2012) stated that 52% of the attacks were low severity and 46% were of medium severity. Nonetheless, some 2% resulted in severe bodily wounds, while none resulted in death. In 1993, Leadbetter's study of welfare workers in England testified to the experiences of kicks, blows, and moderate physical hostility, including thieving, beating, and hair-pulling. Likewise, the work of Wilkins (2014) on child welfare workers showed that these workers commonly experienced kicking, slapping, and being physically held captive by clienteles. Regarding the public transport sub-sector, a survey of cab drivers in Canada found that being spat on and, or punched were common experiences of Canadian public transport drivers (Zhou *et al.*, 2018).

More severe assaults resulting in wounds are relatively rare compared to less severe ones. Nonetheless, there are some accounts of grave assaults across a variety of private and public services. Craig (2016) found that 52% of nurses, at some point in their career had witnessed assaults occasioning minor injuries, while 13% reported an experience resulting in serious

injuries. Using paramedic data in Australia, Maguire (2018) stated that severe injuries caused by assault increased from 2001 to 2014 in multiple of three. Furthermore, a survey by Elston *et al.* (2002) on physicians showed that eight (of 697 respondents) experienced assaults that involved small arms and light weapons (e.g., guns, knives, axes). Likewise, Magin *et al.* (2009) affirmed that general administrative assistants had experienced threats with handguns, though this type of assault was largely infrequent. A study of student nurses by Hopkins *et al.* (2014) likewise showed a few incidences of having chancy objects thrown at them and attempts to stab them.

Although uncommon, the study of Boyd (1995) established that gunfire and stabbings were the most severe acts of violence against Canadian workers. In Australia, Hine *et al.* (2018) stated that 9% of wounds in their sample respondents were from being stabbed, or hit with a big stick, iron or gun. In England, Brown (1994) established that some 17% of constables' assaults led to severe injuries, while the bulk of wounds (about 65%) were slight cuts and bruises. In the study by Wilkins (2014), 4% of surveyed child welfare workers in England testified to suffering from physical assault involving small arms and light weapons. Furthermore, Lincoln and Stockill (2015), reported the perception of stakeholders in Australia that the severity of assaults against cab and public bus drivers is on the increase. Similarly, the study by Zhou *et al.* (2018), revealed that a significant number of Canadian cab and public bus drivers had been threatened at gunpoint.

On the personal characteristics of perpetrators of assaults, Dollard *et al.* (2022), showed that 25% of the respondent sample reported having been physically threatened in the workplace, usually by a client or their family, or both. In Canada, the impact of drugs or alcohol or both was a significant predictor of attacks against workers in the healthcare sector (Brophy *et al.*, 2018). Likewise, in England, the work of Rao *et al.* (2007) found alcohol and drug abuse to be more common among those who were aggressive against healthcare workers. Similarly, the work of Elston *et al.* (2002) discovered that the majority (78%) of medics who have been assaulted testified that drug addiction or alcohol or both problems motivated their assailants. A similar case was found recently in New Zealand as police officer assaulters were habitually under the influence of alcohol or drugs, or both (Den Heyer, 2023).

On the contrary, Dawson *et al.* (2017), in their study on assaults against Australian public bus drivers, discovered that only 17% of the incidents involved passengers under the influence of alcohol and, or drugs. Hence, they concluded that substance use was not a significant reason. In their study, Hine *et al.* (2018) revealed that encounters with female suspects were predictive of constable injuries. In the same way, data from the Office of Inspector of Custodial Services (2014) showed that female inmates are highly involved in correctional workers' assaults. Age was also indicated as a factor in correctional workers' assaults. For instance, findings showed that almost 70% of assaults against correctional staff were carried out by youth inmates under the age of 35 years.

Previous findings regarding the characteristics of workers who experience violence show that physical assaults are more common in males compared to females among medics (Elston & Gabe, 2016), nursing care (Hegney *et al.*, 2006; Shea *et al.*, 2017), child welfare workers (Briggs *et al.*, 2004), and social welfare workers (Balloch *et al.*, 1998). Similarly, male officers were excessive in injury incidents involving police constables (Larsen *et al.*, 2016). Whereas, in the officially recorded incidents, Cashmore *et al.* (2012b) found males to be more often the

prey of assaults than females among correctional health workers, the self-reported experiences conducted with the workers of the same agency showed no statistically significant difference. Thus, the methodology can impact findings. Concerning age, a study by Hegney *et al.* (2006) discovered that younger caregivers were more likely to report experiences of assaults. Similar findings have been reported by Cashmore *et al.* (2012) for correctional healthcare workers and by Soares *et al.* (2000) for psychiatric medics and nurses.

Research has found violent attacks to be more common to less experienced workers among police (Sundaresan & Sharma, 2022), nurses (Hegney *et al.*, 2006; 2010; Ibrahim 2023), child welfare workers (Briggs *et al.*, 2004), and correctional officers (Inspector of Custodial Services, 2014). Ibrahim (2023) found that a caregiver's year of experience is inversely related to the probability of experiencing workplace violence. That is, caregivers who have been working for many years are less likely to encounter any form of violence compared to those who have fewer years of experience.

The work of Balloch *et al.* (1998) also revealed that, whereas 21% of certified social welfare workers testified to being physically assaulted, 30% of social welfare supporters testified to being physically attacked. This is because the social welfare supporters were less experienced and more likely to do routine work, including visiting clients (Balloch *et al.*, 1998). Conversely, a study by Winstanley and Hales (2008) showed no significant difference in assaults between qualified as against unqualified or experienced as against less experienced social welfare workers. Likewise, a study (Craig 2016) established no significant difference in the physical attack between caregivers who were trained in aggression management and those without such skills.

Some situational factors are linked to violent attacks on workers. These include, among others, contact and field environment factors. Intuitively, contact creates the physical opportunity for violence, and studies have cited the regularity of direct personal interaction as increasing exposure to, or chance of, assaults. A higher prevalence of aggressiveness has been reported in jobs involving personal interaction with persons who have a propensity for emotional violence (Sundaresan & Sharma, 2022). For instance, Al-Khatib *et al.* (2023) found that the assaulted healthcare service providers were likely to have been posted to the Emergency Departments of Public Hospitals.

A study by Koritsas *et al.* (2008), showed that social welfare workers who reported experience of physical mistreatment had more direct interaction with clientele compared to those who did not report offensive experiences. Schneider (2002) depicted a related conclusion from a study of social welfare workers in Canada. Some professions require personnel to have direct contact with customers, either through visitations to the community or where customers live on-site, which has also been noted to generate risks for assaults on workers. In surveys of child welfare workers (Briggs *et al.*, 2004) and caregiver workers (Balloch *et al.*, 1998), it was found that the likelihood of assault is high for workers who visit customers' sites. Specifically, Balloch *et al.* (1998) reported that 62% of residential caregiver respondents interviewed had been physically abused. In law enforcement, attending to domestic fighting has also been mentioned as particularly risky (Ellis *et al.*, 1993), and more recently, Den Heyer (2023) cited the regularity of direct contact as increasing susceptibility to assaults against the police.

Several previous studies (e.g., Moon *et al.*, 2019; Farrell *et al.*, 2006) have documented the impacts of assaults on workers while on official duties, including adverse costs for emotional and physical well-being, declined connection to the workplace, lack of an aspiration to remain in the occupation; and decline in job performance such as increased blunders. In addition, research by Moon *et al.* (2019) and Farrell *et al.* (2006) have identified costs for the workplace as a whole, such as lowered output and difficulties in retaining workers for long. Using accepted employees' compensation claims made by personnel of police departments, Ferguson *et al.* (2011) discovered that not less than 587 productive hours per claim were lost due to injuries caused by job-related assaults. Besides, a study of approved caregivers compensation claims over two years showed 2500 productive days were wasted to assault-related wounds (Liss & McCaskell, 1992), while in a sample of caregivers, Mahoney (1991) found that 19% of participants identified someone who had resigned from the job after being attacked. A recent study by Al-Khatib *et al.* (2023) established the lowered productivity and increased difficulties in retaining health workers in Jordan due to workplace violence against healthcare providers.

Overall, the literature evidence over the years suggests that incidences of assaults vary among workers and across professions and organizational settings. Besides, literature also suggests the sources and causes of aggressive behaviors, as well as the importance of workplace safety and security measures. The current study, therefore, examines the prevalence and characteristics of indecent assaults on DCOs. It explores some of these factors of physical attacks on Physical Planning and Building Development Control areas in a Nigerian setting.

3.0 METHODOLOGY

The study adopted a geographical case study and mixed-method approach to study the prevalence and characteristics of attacks experienced by DCOs.

3.1 The Study Area

The geographical case is Ogun - one of the 36 states of the Federal Republic of Nigeria. Ogun is situated in the southwestern zone of Nigeria (See Figure 1). For physical planning and building control matters, Ogun is organized into 20 Local Government Areas (LGAs) or Zonal Planning Authorities (ZPAs). The ZPAs are responsible for preparing development plans, granting planning approvals, controlling and monitoring various physical development activities. It also ensures that growth and development take place in the local government according to the approved development plan.

Each ZPA has divisions such as Architecture Unit, Surveying Units, Estate Management Unit, Development and Building Control Unit and each unit has a head. Nevertheless, a ZPA is headed by a director who is assisted by a Deputy and other Zonal Planning Officers/DCOs. The team is responsible for implementing the Ogun state town planning, building, and development control plans and coordinating building construction and physical development in their respective jurisdictions.

3.2 Data Collection

The mixed method approach in this study is made up of in-depth interviews and a questionnaire survey (Creswell, 2018). This allows the data to be analyzed qualitatively and quantitatively (Flynn, 2021). Logistic regression models (Olive, 2017) were used to examine

the influence of independent variables (e.g., types of assaults, defense mechanism, location of assaults, socioeconomic groups, and demographics of respondents, among others) on DCOs' experience of assaults while in the line of duty.

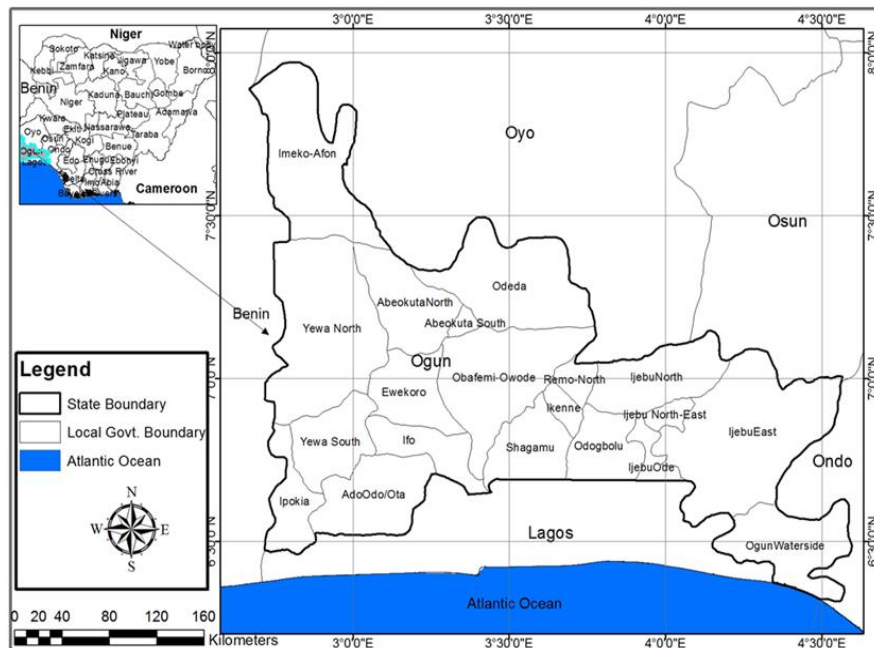


Fig. 1: Geographical Map of Ogun indicating the LGAs-ZDCOs
Source: Badiora, & Bako, (2023).

Each of the 20 LGA-ZPOs (See Fig. 1) constitutes clusters from which at least a Development Control Officer (DCO) was randomly selected as participants. Using this sampling method, 76 participants were sampled. Due to the busy schedule of DCOs' activities, data were collected between July 2021 and November 2022 through questionnaires (in pen and paper) and in-depth interviews. Prior to questionnaire administration and the in-depth interview, an experimental study was conducted on 12 potential respondents to test the survey instrument. The golden rule is to try on 12 to 50 people before the actual administration (In, 2017; Tavakol & Dennick, 2011). Feedback was obtained about the length of the interview questions, instrument validity, and interview question clarity. The survey instrument was then reviewed and further tried on more than 12 potential respondents. For the internal reliability of the questionnaire, Cronbach's alpha values were with a cut-off value of .79 (Tavakol & Dennick, 2011). The reliability test showed that the questionnaire used was acceptable ($\alpha = .81$), exceeding the recommended satisfactory level of .71 (Tavakol & Dennick, 2011).

For the questionnaire administration, participants were provided with a multiple-choice option to develop categorical data (Teddlie & Tashakkori, 2003). This was followed-up with in-depth interview sessions where the respondents were given the chance to discuss their specific responses in the questionnaire and also share personal experiences. The questionnaire was in English. The interview sessions were mixed - in English and Yoruba (*the main local language in the study area*). This study sustains avoidance of injury and privacy of respondents' personalities and experiences. Besides, the study exercised informed consent during data collection by ensuring that respondents were conversant with the intention of the study. They were also given equal chance to participate and withdraw their participation at any time. Among others, the survey questions asked participants how often they had been

attacked in their job as a DCO, the severity of the assault and wound received as a result of the assault, as well as the location where the assaults took place, and if there was any form of defense mechanism employed by them.

The 76 respondents included 51 senior DCOs. The majority (72%) of the respondents were male. Furthermore, the profiles showed that 30% of the participants had more than 15 years' experience, indicating that the respondents had adequate experience on the job to provide ample evidence for making valid deductions on the dynamics of indecent assaults on DCOs in the study area.

3.3 Variables and measurements

Two groups of variables were considered in this study - dependent and independent. For the dependent category, the variable was the experience of assaults as DCO. Regarding this, it was asked: "Since you joined this agency, have you had direct experience of assaults in the line of duty?" with a response as a binary categorization from 1 to 2, where 1 = Yes and 2 = No. The response categorization was re-coded into two to make a clear distinction between those who had been assaulted and those who had not. A detailed description of this variable is included in Table 1.

For the independent variables, four groups were determined: defense mechanism, location of the assault, residents' socio-economic and demographic grouping, and sections within the agency. Regarding the defense mechanism, we asked: "Do you employ any defense mechanism in the line of duty?" with a response as a dichotomous categorization from 1 to 2, where 1 = Yes and 2 = No, with "2=No" as the reference variable. The response categorization was re-coded into two to make a clear distinction between those who use defense mechanisms and those who do not. In this study, we are also interested in the type of defense mechanism employed. Thus, the next question asked respondents about it and was coded into self-defense, police and military personnel accomplices, and group visitation of sites, with self-defense as the reference variable. Regarding the location of the assault, we asked: "Where do the assaults take place?" This was coded into five, including office/workplace, on the developer's site, private/personal residence, on the street to and from work, and in a public place/occasion, with office or workplace as a reference variable.

The respondents' demographic and socioeconomic status were indicated by gender, age, position, and number of years in service. Gender was coded into male and female, with female as the reference variable. The categories for age were 21 – 40, 41 – 50, and 50 – 60 years, with 21 – 40 years as the reference category. For the position in the agency, options included DCO, senior/chief DCO, and the director cadre, with DCO as the reference category. The categories for years of experience in the agency were coded as less than five years; 5-10 years, 10-15 years, and more than 15 years, with less than five years as the reference category. Regarding the respondents' service section in the agency, they were asked: "Which section of the agency are you attached to?" This was coded into three, including site inspections and development control, office and general administration, as well as estate management and survey, with office and general administration as the reference variables.

3.4 Data Analysis

Data analysis was completed using the statistical package of SPSS 16.0. Descriptive analysis was used to summarize the units of analysis. Logistic regression (LR) was used to explore the

variables. The independent variables (such as defense mechanism, location of the assault, residents' socio-economic grouping, and sections within the agency) were used in LR models to predict the dependent variable: experience of assaults while in the line of duty. LR was employed because it is favored over others as an appropriate method for analyzing dichotomized variables. The results of the LR models were reported using Average Marginal Effects (AME) and Standard Errors (SE) estimates. Mainly, AME provides statistics that are simpler to interpret and make honest inferences. As harmonized with more conventional odds ratios, AMEs are more suitable for matching models, and thus, using AME measurements allows this study to link the effects of independent variables across models.

Responses from the follow-up in-depth interview were documented using a combination of voice recording transcription and note-taking. Sessions discussed in the Yoruba language were transcribed into English. This process implied the risk of altering and, or losing details of the discussion. Admitting this, we tried to lessen the occurrence by clarifying all questions emerging from the questionnaire and referring back to the original records when required. We then developed a framework for coding, using NVivo 9 for data management. The study conducted a thematic analysis using the six-phase method (Cichoń, 2020). As part of this procedure, descriptive codes demonstrating features of the discussions were generated and then collated to form overall discussion subjects. Following this, excerpts were extracted from each theme from the discussion transcripts. The final stage involved telling the story in writing from the research problem. Our analysis thus followed a reiterative method, starting with a general issue on the prevalence of violence against DCOs and identifying emerging themes on the characteristics and influencing factors based on the empirical data instead of describing these themes a priori.

4.0 RESULTS

Findings are presented under various sub-headings as follows. If not otherwise indicated, the tables used to summarize results are from the survey carried out between July 2021 and November 2022.

4.1 Descriptive analyses of the variables

The first question asked respondents if they had direct experience of assaults in their roles as DCOs. Findings (*see Table 1*) show that approximately 92% of sample respondents have experienced assaults in the line of duty as DCOs. This vast percentage shows how important this issue is among developers and DCOs in the study area. Some 8% of the respondents who confirmed not to have had direct experience of assaults were also fresh in the agency's activities. Therefore, by implication, it is not unlikely that the more the years in their roles as DCOs, the more likelihood of direct experience with assaults in the line of duty.

Some respondents discussed their experiences further. Two significant issues emanating from this discussion were the severity of the assault and the weapons involved. Although the majority (61.0%) of the respondents testified that their assault was not severe, the proportion (39.0%) of respondents who stated that it was serious is noteworthy not to be discounted. Some weapons mentioned by the respondents include kitchen knives, broken bottles, steel pipes, firearms, cutlasses, and traditional weapons like "Olonde" a Nigerian black magic twine capable of causing death and serious/permanent injuries when smashed on the human body.

Table 1: Descriptive summary of variables

Unit of Analysis	Variables	Freq. (No.)	Per cent (%)
Direct experience of assaults	Yes	70	92.0
	No	06	08.0
Type of assaults experienced**	Verbal assault	70	45.8
	Physical assaults	55	35.9
	Threat to one life	10	06.5
	Threat to the life of a family member	18	11.8
Severity of assaults	Serious assaults	27	39.0
	Not serious assaults	43	61.0
Occasions assaulted	1 - 4	11	15.0
	5 - 9	35	51.0
	Ten and above	24	34.0
Injury received from the assault	No, injury was not received	19	25.0
	Yes, injury received	57	75.0
Types of Injury received**	Fear and psychological trauma	57	41.6
	Cut and bruises	38	27.7
	Fractures and Stitches	30	21.9
	Firearm injuries	12	08.8
Location of the assaults occurred**	On the developer's site	56	40.0
	Office/Workplace	10	07.1
	Private/personal residential house	15	10.7
	On the street to and from work	34	24.3
	In a public place/occasions	25	17.9
Use of defense mechanism	Yes	70	92.0
	No	06	08.0
Type of defense mechanism**	Self-defense	70	42.9
	Police/military accomplice	23	14.2
	Group visitation of sites	70	42.9

NB: ** Multiple responses allowed

A respondent narrated that: "...my first experience was a highly aggravated assault with some "Omo-Onile" boys. I was naïve in this work then. It was a very serious incident. The intention of the boys that day was to cause severe bodily injury to me. They had come to the site with deadly weapons such as a cutlass and firearms. I was about to be beaten, punched, kicked, and head-butted. Then one of their leaders intervened. I had assisted him with some petty cash before that incident. He recognized me and pleaded with the gangs. He managed to help me escape on his Okada..." (Male/45 yrs. old).

The questions on the types of assaults experienced in their roles as DCOs were allowed for multiple responses/options. Thus, findings show that respondents who had direct assault experience have had one or more assault types. The most common of them all was verbal assaults (45.8%). Next to this was physical assaults (35.9%). Most of the respondents

confirmed that most of the time, the assaulters made verbal threats prior to the physical assault. Findings show that threats to one's life and the life of family members accounted for 6.5% and 11.8% of all assaults experienced by DCOs in the line of duty, respectively.

Beyond these, some respondents discussed “spiritual attack” and the use of black magic on them in their roles as DCOs. A respondent narrated: *“...on this job, what have we not experienced? How many are we going to count? Is it that of bullies on the streets, or that of physical intimidation of our immediate family members? A developer reported me to my husband and threatened to frustrate his life. I could remember a day, sometimes in 2010. We were on inspection at a site and I had a serious confrontation with the site developer’s uncle who is also one of the influential people in the town. He vowed that he would teach me a lesson. That same night, I almost died in my sleep. I saw the same confrontation that happened during the day, but in my sleep, someone shot a gun at me on my left chest, and that was the beginning of my chest pain. I could not do my work effectively. We tried all hospitals in town until one of the doctors privately advised us to explore traditional means...”* (Female/55 years old).

A follow-up discussion with respondents helped us to understand some characteristics of the critical actors and assaulters. Respondents confirmed that most of the assaulters were male, although there were very few females as well. Furthermore, respondents affirmed that many of the assaulters are usually members of a cult group and, or criminal gang. Hence, they are always in a group and, or accompanied at the time of the assault. Besides, they are ardent abusers of alcohol and drugs. Furthermore, assaulters were mostly youths, with the most prevalent age being between 18 and 40 years old. Findings show that multiple actors were responsible for assaults on DCOs in the study area. Among the actors (drivers of assaults) mentioned are landowners, family members (*popularly called - Omo-Onile*), developers, egoistic political and economic elites, as well as some egocentric community leaders. Respondents discussed that many of the direct attacks are not necessarily carried out by these actors. Nonetheless, they (assaulters) mainly act on their instructions.

Most of the assaulters are usually area boys/unemployed youths. As explained by a respondent: *“...In my experience, I can boldly say that many of the assaulters used by developers, egocentric political leaders, and ‘Omo-Onile’ to cause violence on sites are idle youths. They are frustrated youths who, I think, are unable to secure employment and now take to the underground economy and engage in illicit activities, including land crime and violent conflicts. I was once engaged in a discussion with one of my attackers after he was arrested. He supposedly worked for land grabbers and ‘Omo-Onile’ in my jurisdiction and had a history of assaulting people in the community. He made me realize that for some of them who follow ‘Omo-Oniles’, it is the pressure of surviving and the necessity that compels them. By working on this path, their financial needs are met, and it ensures there will be food on the table, thus giving them a degree, although limited, of ownership over or control of resources. This has helped many of them from sinking further into poverty, and enables them and their family to escape the vicious cycle of poverty...”* (Male/57-years-old).

Another question probed respondents on how repeatedly they had been attacked as DCOs. Findings show that only 15% had only been assaulted 1 to 4 times, with just 34% stating that they had been assaulted on 5 to 9 occasions. Findings show that a majority (51%) of the respondents had been assaulted on ten or more occasions (See Table 1). On injury received

during the assault, findings show that a significant proportion (25%) of respondents received no injury at all. In comparison, 75% confirmed receiving various injuries from the assaults, of which fear and psychological injuries were common to all the 57 respondents who specified that they received injuries during the assaults. For instance, some respondents testified that the attacks affected the level of confidence they had in their ability, while some discussed experiencing a feeling of overactive vigilance on duty. Other respondents attested to a general feeling of increased awareness of their environments, both when they are on construction site inspection and when they are not. A respondent described specific ways that her behavior has changed due to this overactive vigilance: *"...my previous experience of violence has made me more suspicious of people getting too close to me, particularly while on site inspections. I now will not let people be out of my sight; I, depending on the situation on the site, position myself so I can see who is around me..."* (Female/51-years-old).

There were also altered moods towards work as respondents testified about how being attacked transformed the way they felt about being an officer in the Physical Planning and Building Control Department. Some respondents testified generally about how, on some days, they would not want to go on construction site inspection. Other respondents said that since being attacked, they have doubted whether they want to progress with their career as DCO in the Physical Planning and Building Control Department. Besides, a respondent spoke about becoming *"nervous"* more effortlessly and how this has impacted her, even beyond the workspace. For instance, she said she has become less confrontational, and this has changed the way she works because she tries and prioritizes works and sites that are not likely to be hostile.

While more severe injuries are relatively rare, the study accounts for a few. For instance, cuts/bruises and fractures/stitches were the few severe injuries received by DCOs, having respectively accounted for 27.7% and 21.9% of all types of injury received as a result of physical attack experience. Furthermore, findings show that DCOs also receive firearm injuries (8%) intermittently. Narrating his experience, one of the respondents said: *"...this healed wound on my neck, I was not born with it. It was an injury I received while visiting a site in 2013. There was a serious conflict on the land. It was a boundary issue. We had gone to the site with the original/approved plan of the area to settle the matter. Both parties came to the site with some thugs. In the process, a fight broke out between the parties' thugs. Everybody was running for their lives. Other officers with me at the time of the assault had 'Japa'. I did not have the opportunity to talk with the assaulter to identify myself and de-escalate the situation. I became one of the victims of a cutlass-cut. At that moment, I became unconscious and did not know how I found myself in the hospital..."* (Male/56-years-old).

A follow-up discussion with respondents helped us to understand some effects of assaults on the well-being and statutory duties of these officers, as well as whether the assaulters were arrested and charged with the assaults. While some said the attacks caused them to require hospital treatments, some said they needed to take time off their duty to the extent of weeks and months to recover from various injuries suffered. The discussion with respondents steered to issues about reporting the assault. Although the site visitation incident reports do not include compulsory capture of assaults, several respondents confirmed reporting incidents of assaults. However, either formally and, or informally, they did report to one or more family members, friends, colleagues, their bosses at work and the police agency. While some respondents felt comfortable reporting assaults, others did not. For respondents who

feel comfortable, it is because reportage is required for every on-site visit (*"We must write official reports for every site visitation, although there is no provision for assault, you can mention it if such happened nonetheless"*). It aids staff recovery, it is nothing to be feeling guilty of, and it helps improve staff safety, and security in the future.

On the contrary, for those who feel uncomfortable, it is primarily because of inadequate support (i.e. from the agency, family and friends, colleagues, bosses/supervisors and the state police); Site visitation reports do not include compulsory capture of assaults, even when you mention this, reportage would not change anything (*"it is just business as usual." It is our agency's ritual, and makes no significant difference"*) and, most times, assaulters do escape penalties. Some of these issues raised were further confirmed when the participants mentioned that some of their assaulters were arrested and charged accordingly. Nevertheless, there were mixed feelings on the process of arrest and charges. While some were partially satisfied with the process, others were not. These respondents confirmed that assaulters and, or actors escape justice because they have benefactors among the political elites in the study area. The respondents stressed that impunity in the Nigerian criminal justice system allows many of these assault crimes and criminal actors to flourish.

Another survey question involved reviewing the occurrence of the assault. The survey started by asking the respondents about the location where the assaults occurred. Findings show that assaults on DCOs mostly happen while on site (40%) on official inspection duty. Next, the survey discovered that several assaults (24.3%) had been committed against DCOs on the street to and from workplaces. Furthermore, a significant number of assaults have been suffered by DCOs while in public places and on occasions (17.9%) such as bars, restaurants, market places, and social functions. Findings also revealed that assaults do occur in DCO offices and private residential houses, with the least place of occurrence being the office. Perhaps this is because of security personnel at government offices in the study area. Hence, assaults against physical planning and DCOs could occur in official and unofficial places and locations. A respondent illustrated how she was stopped in a famous market in the study area by a woman whose property was marked for demolition: *"... We had gone to red-mark this particular block of shops for demolition on Wednesday of that week. I was in the market on Saturday to get groceries for the family. This woman just appeared from nowhere and started raining abusive words on me, shouting at the top of her voice. This attracted many people in the market. It was quite embarrassing. There was no physical fight though, only verbal, but it was very aggressive and abusive..."* (Female/45-years-old).

While the survey questionnaire did not ask a direct question on the time of occurrence, respondents did refer to time while discussing many of their responses. For many, most of the assaulters had attacked them during the day, especially during the official working hours of 8:00am – 4:00p.m (WAT), mostly on weekdays and, or working days. Nonetheless, respondents also said that some assaulters attacked on non-official days/times such as weekends and hours in the late evening between 6:00p.m and 10:00p.m (WAT). This is particularly common to those DCOs who have been attacked in unofficial places like personal residences, on the streets to and from work, and in public places and occasions such as markets, bars, restaurants, and social functions.

Furthermore, respondents were asked about their coping and defense mechanisms. About 92% of the respondents confirmed the use of defense mechanisms. Findings revealed that

DCOs have devised various strategies as defensive mechanisms. Police and military personnel accomplices are one of the defense mechanisms explored by DCOs. This is common when visiting highly volatile areas. A respondent said, *"We have learned from the past."* Thus, it is now common to visit "problematic sites" with personnel of the security agencies as a means of defense against assaults. Furthermore, two strategies were prominent. These are the use of self-defense and visiting sites in groups. Each of these accounted for 42.9% of the strategies devised by the participants. Participants reiterated that the Bureau standard practice is that a Supervisor must visit a site in his/ her jurisdiction with as many officers under him/her as possible, including those on internship and, or industrial training from various Town Planning Schools. This is to ensure the safety and security of personnel as well as learning and exposure. As DCOs are not expected to carry any weapons whatsoever, the issue of self-defense was clarified by one of the participants as stated: *"...All jobs have risks, but I think our job has more. We are like the police – physical development and land police. Land in this part of the world is life. It is a serious matter. Our people can go to any length, even if it is to kill. So, you cannot afford to be careless. For me, I have faith in God to protect me. Those who can use Juju (Black Magic) are using it. Those who can make do with private securities are also doing so. In my personal opinion, nobody is "alone" in this job..."* (Female/45-years-old).

Following her comments, a further discussion emerged on whether the participants thought that being assaulted was part of their profession. There were mixed feelings. While some of the respondents indicated that they understood being attacked or enduring an assault was just a share of their job and an inevitable hazard of physical development monitoring, others thought that it was not. For the latter, a respondent commented thus: *"...No one should consider that being attacked is part of this profession. DCOs should be able to work safely. I agree it is a work-related risk, but that does not mean I should be beaten while doing my official duties. I have the right to go home safe like everyone else. I did not join this profession to be assaulted but to help in the development of sustainable cities and safe living. Violent physical assault on DCOs should not be normal in a sane clime..."* (Female/55-years-old).

For those respondents who thought that being assaulted was part of their profession, they held this opinion because their professions always make them to be in contact with people, and Nigerians (people) are unpredictable and often become violent when it comes to issues of land. Just as policing, there are risks involved in physical development monitoring; people often do not like being told what to do with their land, and there is a general lack of respect for town planners and DCOs, at least in Nigeria. Furthermore, participants believe that if their system of operation can be done in such a way that it reduces contact with people/developers, then assaults would be reduced drastically. Thus, some reasons emerged from this analysis regarding the remote and immediate causes of assault on DCOs. The most significant is the contact between the DCO officer and the people (i.e., assaulters).

4.2 Multivariate analyses of the variables

The results of the LR model (see Table 2) indicate that respondents who have fashioned out defense mechanisms were less likely to experience assaults in the line of duty compared with those who do not use any defense mechanism. That is, respondents who use defense mechanisms were 69.1% more likely not to experience assaults compared to those who are not using any defense mechanism. Findings further show that, of all defense mechanism options listed in this study, the use of police and military personnel accomplices has the highest odds compared to others. That is, respondents who use police and military personnel

accomplices while discharging their duties were 54.2% less likely to experience assaults compared to those who do not use this type of mechanism.

Table 2: *Logistic regression models of experience of assaults*

Unit of Analysis	Independent variables	Experience of Assaults	
		name	s.e
Use of defense mechanism	No		
	Yes	-.691**	.912
Type of defense mechanism	Self-defense		
	Police/military personnel accomplices	-.542**	.634
	Group visitation of sites	-.319**	.467
Location of the assault	Office/Workplace		
	On the developer's site	.442**	.494
	Private/personal residential house	.009	.827
	On the street to and from work	.217**	.744
	In a public place/occasions	.299	.917
Gender	Male		
	Female	.354**	.677
Age distribution	21 – 40 years		.
	41 – 50 years	.459**	.774
	50 - 60 years	-.188**	.333
Cadre/Position	DCO		
	Senior/Chief DCO	.597**	.288
	Director Cadre	-.348**	.442
Experience (years)	Less than five years		
	5-10 years	-.393**	.147
	10-15 years	-.256**	.098
	more than 15 years	-.157**	.099
Section	Office and general administration		
	Site inspections and development control	.696**	.591
	Estate Management and Survey	.348**	.818

NB: * $p \leq .05$; ** $p \leq .01$; *** $p \leq .001$; s.e = standard error; ame = average marginal effect

Furthermore, findings show that it is better to visit sites with a group of colleagues than to depend on self-defense since results show that respondents who visit sites in groups were 31.9% less likely to experience assaults compared to those relying on self-defense. Regarding location, two places were significant – on the site and on the street to and from work. However, developers' sites have the highest significant odds. That is, respondents were 44.2% more likely to be attacked by assailants while on site than other locations. The odds of assaults occurring on the street to and from work are less (21.7%) compared to while on site.

Regarding socio-economic and demographic characteristics, female officers were 35.4% more likely to be assaulted than male officers. In terms of age distribution of respondents, findings show that respondents within the age bracket of 41 – 50 years were 45.9% more likely, while

respondents within the age bracket of 50-60 years were 18.8% less likely to experience assaults in the line of duty compared to other age groups. In terms of position in the agency, respondents who are senior or chief town planning and DCOs were 59.7% more likely to experience assaults, and those who are in the cadre of directors were 34.8% less likely to experience assaults in the line of duty.

Interestingly, for years of experience, findings show that the more years respondents spend in the service, the lower the likelihood of being assaulted in the line of duty, as findings show that respondents who had spent five to ten years, eleven to fifteen years, and more than fifteen years were respectively 39.3%, 25.6% and 15.7% less possible to experience assaults compared to those who had only spent less years. In terms of sections within the agency, respondents in site inspections and development control, and those in estate management and surveying, were 69.6% and 34.8% more likely to experience assaults, respectively, compared to those in the office and general administration units. This is perhaps because the officers in the latter do not necessarily visit sites and ongoing developments and, thus, have no direct contact with people or assailants.

5.0 DISCUSSION

This study examined the occurrence and characteristics of assaults experienced by DCOs in Nigeria. While findings showed that the bulk of respondents had been attacked, only a few of the attacks were severe. These findings are similar to those of Hopkins *et al.* (2014), who found that nurses' experience of assault in clinical settings mainly involved being punched, but there were also a few cases of having a harmful item thrown at them and attempted stabbing. Confirming the works of Elston *et al.* (2002) and Magin *et al.* (2009), who acknowledged that public servants (e.g., physicians and receptionists) do experience threats involving the use of dangerous weapons such as guns, the current study noted that more severe assaults involving weapons are relatively rare for DCOs assaulters too.

Furthermore, assaults where minor injuries occurred were more common, confirming the conclusions of Elston *et al.* (2002), Cashmore *et al.* (2012), Wilkins (2014), Zhou *et al.* (2018), and Den Heyer (2023a), who argue that assaults occasioning in serious wounds are fairly rare compared to less severe assaults among public servants and police. Nonetheless, agreeing with Craig (2016), who found that fewer workers (e.g., nurses), at some point in their profession, had experienced violence resulting in severe gun injuries, the current study also accounts for a few severe and cutlass injuries among DCOs requiring medical care, hospitalization and taking time off their duty.

While most of the assaulters were male, supporting the work of Den Heyer (2023a), who found that an assault attack on a police constable was likely to involve a young male assailant, there were very few females as well, opposing the work of Hine *et al.* (2018) who found that meetings with female suspects were more extrapolative of police attack compared to male suspects. The current study shows that assaulters were ardent abusers of alcohol or drugs, or both. This is also in agreement with previous research (e.g., Elston *et al.*, 2002; Rao *et al.*, 2007; Brophy *et al.*, 2018; Den Heyer, 2023a), which have found the influence of drugs and/or alcohol on assaults against personnel in the healthcare sector.

In contrast, however, the current study is not in agreement with Dawson *et al.* (2017), who found that substance use was not a significant reason for passengers' assaults on public bus

drivers. Furthermore, the current study shows that assaulters were mostly youths who were less than 40 years old. In the same way, previous research conducted by the Inspector of Custodial Services (2014) reported that most of the attacks against correctional workers were performed by assailants under thirty-five years of age.

Findings show that assaults have impacts on both the staff and the agency. On the staff, it is that of health and physical well-being, endorsing previous studies (Moon et al., 2019; Farrell et al., 2006) which have shown emotional and physical well-being as detrimental impacts of assaults on public servants while on official duties. For the agency, it is productivity and loss of working days, supporting the work of Ferguson et al. (2011), who found that not less than five hundred and eighty work hours were lost due to injuries occasioned by job-related aggressiveness. In line with previous studies (e.g., Balloch et al., 1998; Schneider, 2002; Briggs et al., 2004; Koritsas et al., 2008; Den Heyer, 2023), findings in the current study show that the possibility of assault is increased for personnel of development control agency because it is required for the officers of this agency to always be in contact with people, mainly through inspections and visitations to construction sites.

Contrary to previous findings (e.g., Briggs et al., 2004; Hegney et al., 2006; Elston & Gabe, 2016; Shea et al., 2017; Balloch et al., 1998), which reported that physical assaults are more common among males compared to females, findings of the current study show that DCOs who were females were more likely to be attacked compared to male DCOs. Furthermore, findings show that newer workers are generally more likely to experience assaults confirming the works of Hegney et al. (2006), Cashmore et al. (2012b), Soares et al. (2000), and Ibrahim (2023), who found that workers who have been employed for many years are less likely to encounter any form of attack compared to those with fewer years of practice.

In terms of position in the agency, senior or chief DCOs are more likely to experience assaults than those in the cadre of directors. This may be because the senior DCOs are more likely to do routine work, which includes leading on-site visits. These routine works gradually decline as one moves into the upper/director cadre. Findings show that physical assaults may be recurrent for employees with less knowledge of the work, confirming previous studies (e.g., Hegney et al., 2006; Hegney et al., 2010; Briggs et al., 2004; Inspector of Custodial Services, 2014; Sundaresan & Sharma, 2022) which established that assaults are more common to those who are new in the trade. Nonetheless, Winstanley and Hales (2008), and Craig (2016), contradicted this finding, having reported no significant difference in assaults between experienced and less experienced social workers and nurses.

6.0 CONCLUSION

As evidenced in this study, there is prevalence of assaults against DCOs, at least in Nigeria, and some situational dynamics to this include visitation to construction sites, and frequent contact between DCOs and the people (i.e., assaulters), especially when the assaulters are drug abusers. For DCOs, assaults are more common to female than male officers, and may be common for those with less skill in the trade.

Findings suggest that being subjected to assaults can hurt many areas of DCOs' welfare, including psycho-physical well-being and perceived confidence and motivation to do their work. Thus, violence against DCOs should never be normalized. Assaults on DCOs are actually

not work-related hazards but serious criminal acts that should be addressed as such. DCOs' working conditions should not include accepting violence as a part of their duty. There is, therefore, the need to assure DCOs of their safety and security. This study, therefore, suggests that the agency should reinforce its partnership with the police department to beef up security around vulnerable sites while DCOs are on official duties.

The security response could be carried out by a joint-agency task force consisting of state and non-state security forces. Also, there is a need to reduce DCOs' contact with people. Hence, development control agencies in Nigeria need to become fully digital. This kind of system eases the monitoring of land and development, and reduces the risks that emanate from contact with people.

There is also a need to establish good support, welfare networks and better management support for DCOs, such as the provision of a modest hazard allowance and other forms of compensation granted to victims of assaults. Also, site visitation incident reports should be amended to include compulsory capture of assault and violence cases. There is also the need for improved follow-through on assault cases to ensure that assailants and their sponsors face the law. Moreover, there should be an immediate setting-up of continuous and mandatory safeguarding training programs and aggression management workshops for DCOs to handle different emergency circumstances while on the job.

This study has some limitations that could be explored in future analysis. More studies are needed to empirically identify and support interventions that will be most fruitful in abating attacks on DCOs, as well as an investment in robust appraisals to evaluate the circumstances of success of these interventions. Perhaps the best operational interventions may differ by geographical location. It is vital to note that understanding an assault against a DCO is multifaceted and not as straightforward as concentrating exclusively on socio-economic and situational factors that may provoke an assault event on a DCO.

To comprehensively apprehend the reasons for assaults, there is a need to comprehend the function of the Building Control and Physical Planning Agency, the official and unofficial culture of their workers, their attitudinal responses to assaults as a result of discharging their duties, as well as the role of DCOs in this modern society and how DCOs contribute to violence against themselves. Furthermore, the current study focuses on a case study. The findings might be different in other settings. Hence, another novel area to further this study is considering more case studies. This single case study limits a comparative analysis of the issues. The comparison of issues emanating from this study at different geographical scales will provide a better understanding of this subject matter. Another area of future study is the extent and valuation of the individual workers and agency costs of these assaults. This aspect was largely understudied in this current research.

Despite these shortcomings, the findings from the current study provide a unique perspective on building control and town planning officers' experiences of assaults, which can inform national policies and help shape effective support services within the Physical Planning and Building Control Agency.

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