

Research Article

Misuse of Tramadol by Tricycle Operators in the Tamale Metropolis

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Abstract

Background: The misuse of tramadol has emerged as a significant public health issue in various nations, including Ghana. This research was conducted among tricycle operators in the Tamale metropolis. The objective of the study was to examine the factors that affect tramadol consumption among tricycle drivers in the Tamale metropolitan region of Northern Ghana. **Methods:** The study took a qualitative method. Six terminal stations were chosen using purposeful and snowball sampling procedures, with 30 participants drawn from the Tamale Metropolis' six tricycle terminal stations. FGDs were conducted with 60 participants made up of tricycle passengers and key informants. The results were evaluated with the Nvivo 10 program. **Results:** The study's findings revealed that the majority of the participants used Tramadol, and some used Tramadol in conjunction with other substances such as alcohol, mixed energy drinks, Tramadol mixed with alcohol, and snuffing moringa powder mixed with cocaine without a physician's prescription. According to the study, the majority of individuals abuse tramadol by consuming unapproved amounts of 500, 250, 200, and 150 (mg), as reported by certain participants during the interviews. According to the survey, the three most compelling reasons for tricycle drivers to use tramadol are to revitalize themselves and become physically active, to ease discomfort, and to cope with peer pressure. The study discovered the following negative effects connected with the usage of tramadol: Nausea, car accidents, falling asleep while driving, anxiety, aggression, and dizziness. Participants also indicated the possible side effects of Tramadol use. Furthermore, respiratory problems, depression, seizures, inattentiveness, and difficulty to focus are all "side effects of Tramadol use among tricycle" drivers in Tamale Metropolis.

Keywords

Tramadol, Snowballing, Misuse, Purposive, Tricycle

1. Introduction

Commercial tricycle operations have taken over taxi operations in many cities in Ghana in recent years [38]. However, these operators use illegal substances, which put the passengers and other road users in danger. The Psychoactive substance use constitutes 59.5% of road traffic accidents among commercial tricycle operators [1] This supports the reports

from the national road safety commission that the introduction and use of tricycles in the Tamale has contributed to an increase in traffic accidents in the Northern region [23].

A study conducted in Port-Harcourt, Nigeria, found a high link between the usage of psychoactive drugs, particularly Tramadol, and accidents among commercial tricycle drivers

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[27]. It has been stated that psychotropic substances, especially, are frequently prescribed to new entrants into commercial trike operation as cures for stress. Mehrpour et al.,

In the late 1970s, the German pharmaceutical firm Grünenthal introduced and promoted tramadol under the brand name "Tramal" [34]. Since then, it has been distributed in over 100 countries in various forms such as drops, sustained and oral formulations, rectal suppositories, and injectables [17]. Since the 1980s, it has been permitted in various countries and has become the most often prescribed opioid on the world Mehrpour et al., [24].

Different authorities have defined tramadol in various ways. Tramadol, for example, is a pain medicine that is widely used to treat mild to severe pain [13]. Furthermore, Grond and Sablotzki [17] stated that tramadol is a pain reliever that is both effective and well tolerated in the treatment of labor pain, trauma, renal or biliary colic, as well as persistent discomfort from viral or non-infectious sources, particularly neurological discomfort. Similarly, tramadol, like many other prescription pain relievers, stimulates brain receptors and interacts with the serotonin and neurotransmitter systems in ways similar to opioids (Balogun, 2020). Tramadol, commonly known as Ult-ram, is an orally administered pain reliever that can aid with mild to severe discomfort [13].

Tramadol is classified as an opioid analgesic and is typically prescribed by a doctor to help with pain management after surgery [7]. It has been proposed that tramadol is an opioid agonist medication with a potency estimated to be 10% that of morphine. To summarize, tramadol is a distinct form of prescription pain medication used to treat mild to moderately severe and severe pain [38].

Compared to other opiates that serve the same purpose, tramadol was formerly regarded to be the cheapest and safest medicine with a little risk of addiction.

However, in many cases, persons who require medical treatment and have been prescribed tramadol by a physician start using it in excess of the appropriate medical dose, leading in tramadol misuse. This is because people who take tramadol may develop a tolerance to it over time, which means they need more tramadol to achieve the same results [38]. Tramadol has significant medical benefits when used properly; however, it can have serious health consequences when used without medical supervision, in higher doses than recommended, or in combination with illegal substances, alcoholic beverages, and various prescribed or over-the-counter (OTC) drugs [35]. According to medical experts, the overuse of Tramadol functions similarly to heroin and can cause mental disorders can also impair several essential organs in humans [38].

The primary explanation given for tramadol abuse is because it causes a tremendous surge of exhilaration, which is why most users abuse the prescription on occasion [16].

Tramadol is occasionally used in conjunction with other drugs, a practice known as poly-drug misuse [11]. A study of

204 high school students found that 18 (8.8%) were using tramadol, as demonstrated by a urine test. 15 (83.3%) of those who used tramadol took it alone, while 3 (16.7%) used it in conjunction with another substance (marijuana, alcohol, and tramadol) [10].

It has been noted that users frequently combine tramadol with other drugs to increase their euphoria or to self-medicate [10]. Tramadol is commonly combined with sedatives, alcohol, and other painkillers such as sleeping tablets and benzodiazepines, as well as cold treatments [39]. Kwasi Elliason [22] performed a survey of young people in Wassa Amenfi, Ghana, and discovered that 62.3% of respondents took tramadol with an alcoholic beverage, while 29% mixed tramadol with an energy drink and consumed it. Only 8.7% of respondents reported swallowing tramadol with water. Interestingly, tramadol and several other opioids may have pharmacokinetic and pharmacodynamic interactions that increase their toxicity and lead to death (18). Tramadol a moderate opioid with a pharmacological action similar to codeine, and its use may lead to tramadol addiction [8]. As a result, it exhibits severe side effects such as psychotic convulsions and fatal overdoses [12].

Tramadol abuse has been connected to risky behavior and other addiction disorders, according to UK statistics [4]. Al-mér Herrnsdorf et al., investigated the unlawful use of buprenorphine and methadone among adolescents and young adults in Sweden and discovered that benzodiazepines and tramadol were far more commonly used by teens, implying that tramadol misuse has increased in recent years.

Tramadol is the second most regularly confiscated prescription substance in Sweden, according to police data [29]. Since 2008, tramadol use in Egypt has surged, leading in an increase in drug treatment center admissions [10]. Despite the fact that drug addiction is not a new issue in Egyptian society, tramadol usage has been a significant public health concern in Egypt over the last four years [10].

In Ghana, there is a scarcity of data on tramadol abuse. However, data from the Food and Drugs Authority suggest that tramadol addiction is common in Ghana, as evidenced by the Food and Drugs Authority's conclusions on the drug's widespread use [28], and several media publications on society's challenges associated the use of illicit drugs.

Despite evidence of a high rate of tramadol usage among young people, no scientifically rigorous investigation has been done to evaluate the extent of the problem in the Northern region. As a result, there is an increasing public impression of tramadol usage and irresponsible driving in Tamale, resulting in a high rate of accidents among tricycle drivers. Thus, the purpose of this article is to investigate the factors that contribute to tramadol usage by trike drivers.

The purpose is to determine tricycle drivers' knowledge and attitudes concerning tramadol use, as well as to examine their perceptions of tramadol's effects. Anto and Danso [43] observed that people who drink alcohol are more likely to abuse tramadol than people who do not.

The usage of illegal substances in Ghana is now one of the primary causes of our health-care system's excessive congestion. According to research conducted in Ghana's Brong Ahafo Region, tramadol abuse and addiction result in an overburdened criminal system, a stressed health-care system, a loss of production, and environmental degradation [28]. It is critical to rehabilitate and treat problematic drug users; unfortunately, most African countries lack the infrastructure and services to enable such healing and therapeutic treatments [34].

In Northern Ghana, a qualitative examination into the factors influencing tramadol misuse among youths indicated that tramadol has lately gained appeal among the youth in the Tamale metropolitan region and the most active individuals, particularly among the youth and certain senior populations [5]. This epidemic has become a national health concern, with community members concerned about tramadol addiction and its impact on metropolitan health [15]. The Food and Drugs Authority of Ghana (FDA) discovered that certain adolescents, students, market women, and commercial drivers used tramadol in considerable quantities. This was shown in a 2016-2018 analysis of Ghana's administrative areas (World Drug Report).

The purpose of this research is to look at tramadol use among tricycle drivers in the Tamale city. The study's purpose is to determine the effects of tramadol abuse among tricycle drivers in the Tamale Metropolis.

2. Definition of Key Terms

Tramadol Physicians give this medication as a pain reliever to patients. However, it is sometimes used over the counter without a doctor's prescription.

Tricycle Drivers are tricycle drivers who use them for commercial purposes.

Terminal points are the terminals where tricycle drivers stop to load their passengers at various locations throughout the Metropolis.

Soobu is a drug manufactured from moringa leaves, cocaine, tobacco, and other ingredients and utilized.

3. Contribution to the Field

Despite public health concerns about tramadol use and potential side effects, scholarly data on the reasons for its increased use in Ghana is scarce, making evidence-based policy difficult to execute. The primary purpose of this study is to offer qualitative information on tramadol use in Ghana, namely among tricycle drivers (tricycle drivers) in the Tamale metropolis and surrounding areas. The study is required due to a lack of research data and its importance to the health of young people in particular.

The results of this study will help policymakers discover solutions to tramadol abuse. The study's purpose is to gain a

better knowledge of the realities of tramadol use through interviews with those who have taken it. It will also provide a full understanding of any socioeconomic characteristics that may exist in this group, as well as potential interventions to lower the prevalence of tramadol abuse. Furthermore, it is expected that this study would help to better understand the factors that influence tramadol usage among tricycle drivers. It will also contribute to the knowledge and comprehension of public health concepts in scholarly discussions about tramadol abuse.

4. Theoretical Framework

The Theory of Planned Behavior was used to guide this research. The Theory of Planned Behavior is a paradigm widely used by public health practitioners to explore factors influencing behavioral decision-making [3]. It is claimed that, in addition to attitudes and normative views, there is another factor to consider, resulting in three domains that influence behavioral intentions. It is known as "self-efficacy," which relates to a person's impression of how easy or difficult it is to complete a task [30]. The Theory of Planned Behavior states that people act rationally based on their views, subjective norms, and perceived behavioral control. The idea claims that there are three primary parts: attitudes, subjective norms, and perceived overall, behavioral control impacts individual behavioral intentions. This hypothesis plays a fundamental and impartial role in determining behavioral intentions, so that an individual's intention to execute activities that appear to be beyond their competence or control is limited, even if they have positive feelings about the actions and believe others will accept them [3]. The idea focuses heavily on an individual's subjective norms and perceived behavioral control. This hypothesis is relevant to this study since the behaviors of tricycle drivers are impacted by a variety of factors, including the pleasure they gain from consuming the drug, peer pressure, and individual subjective conduct, among others.

5. Methodology

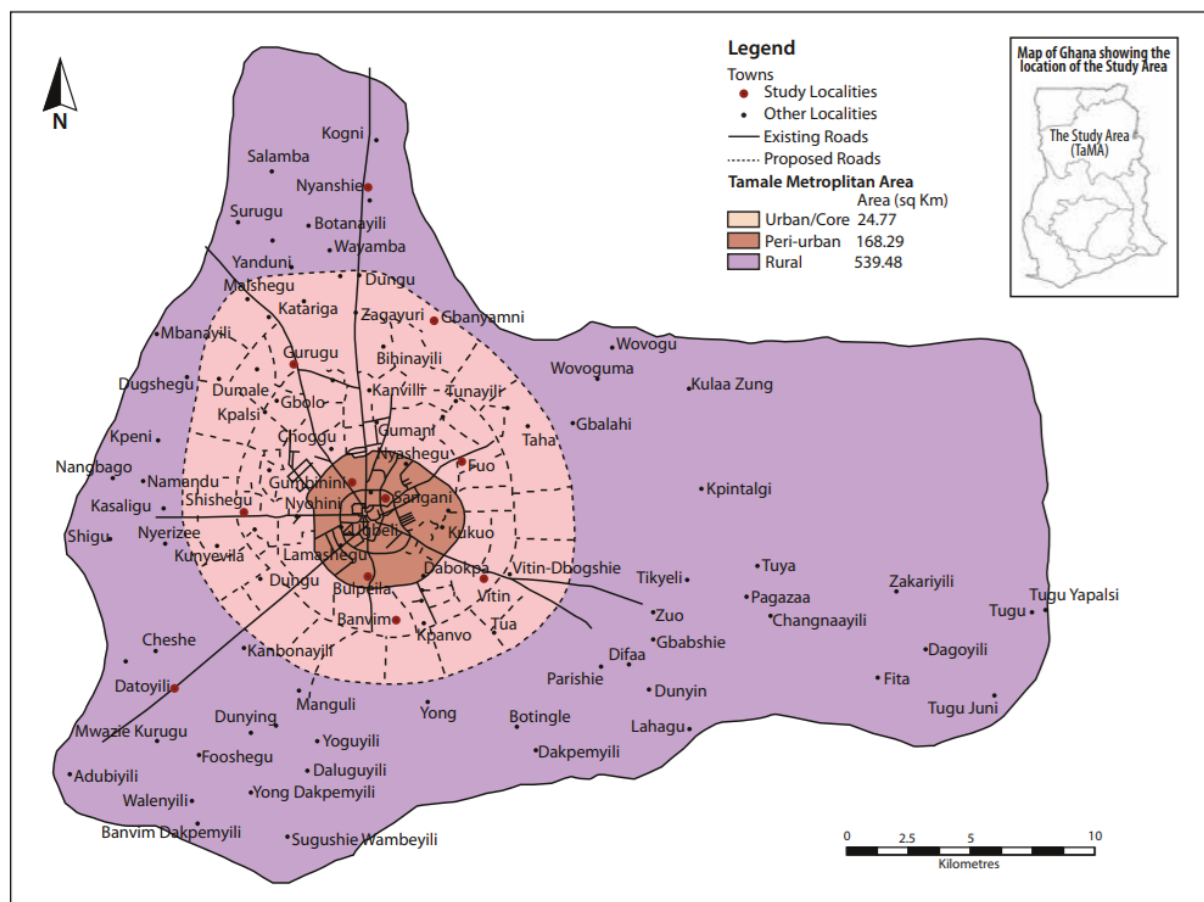
The study was done in Ghana's Northern Region, specifically in the Tamale Metropolitan Area. Tamale is the administrative capital of the Northern Region. The Metropolis is bounded to the north by Savelugu Municipal, to the south by the Central Gonja District, to the east by Yendi Municipal, and to the west by the Kumbungu District.

According to the Ghana Statistical Service [41], the population of the Tamale Metropolitan Area is 293,881, with 146,979 males and 146,902 females.

Tamale is a multicultural community, however the Dagomba make up the majority of the population. There are a variety of religious faiths, with Islam being the most common. Farming is the primary source of income for the community.

Commercial activities are among the most common occupations the population. As a result, "Yam Yam" driving is seen

as a profitable venture in the city, and the majority of the youth are involved in this business.



Source: Physical Planning Department, Tamale (2020)

Figure 1. Map of Tamale Metropolis.

5.1. Study Setting

The study was conducted in the Tamale Metropolitan area. Tamale was granted metropolitan status in 2005 by legislative instrument 1453 and is administered by the Local Government Law, Act 462 [44].

Tamale metropolitan area is located in the Northern Region Ghana. It is the capital and the administrative center of the region. It is located between 9.16°- and 9.34°-degrees north latitude, and 00.36°- and 00.57°-degrees west longitude [41]. It has a vast land area of 731km² and is around 180 meters above sea level (GSS) [41]. The Savelugu-Nanton District borders the metropolis to the north, the Central and East Gonja to the south, the Yendi municipal to the east, and Tolon-Kumbungu District to the West. Tamale Metropolitan Assembly (TMA) is further subdivided into three sub-metros which includes the Tamale north, center, and south sub-metros.

The Tamale metro area has a human population of 293,881

people, with 146,979 males and 146,902 females, according to statistics from the Ghana Statistical Service [41]. In 2012 and 2013, the Metropolis' population was estimated to be 383,205 and 404,609 people, respectively (Ghana Statistical Service) [44].

Despite the fact that native Dagomba make up the bulk of the population, there is ethnic variety. In the city, almost all of Ghana's ethnic groupings are represented. There is also a wide range of religious beliefs, with Islam being the most prevalent [44].

5.2. Research Design

The study used a qualitative research methodology using an ethnographic approach and was conducted in Ghana's Northern Region from May to September 2022. Ethnography is the study and understanding of people and cultures to make better products, services, solutions, systems and future that are intuitive, embedded in context and useful [21]. In other words, ethnographic research design involves a researcher studying a

particular social group in its natural environment to gain an in-depth, insider perspective on their behaviours, beliefs and interactions [21]. In applying this design to this study the researchers stayed in the communities to observe the activities of tricycles drivers and even border some of the vehicles to have first hand impression.

5.3. Sampling Technique

A total of 30 tricycle drivers and 60 passengers were recruited from six terminal stations in Tamale and its surroundings using purposive and snowball sampling strategies. In-depth interviews were conducted with the recruited tricycle drivers to determine their role in tramadol consumption. Observation was also used to identify and elicit group patterns of behavior among tricycle drivers in the Metropolis. In addition, 60 people who use tricycle transportation were chosen for focus group talks to learn about their perspectives on substance abuse among tricycle drivers and the impact it plays in their daily performance.

5.4. Study Participants

The study's participants were tricycle drivers and tricycle key informants (station masters).

In other to participate in this study, a driver must have worked in a terminal for at least three years and be a current driver at a specific terminal or station. Passengers have to have used tricycle services for at least two years and be familiar with the trike drivers' operations and demeanor.

The research was carried out in the most widely spoken language (Dagbani), which was then transcribed and translated into English.

5.5. Data Collection Tools

The investigation was conducted using qualitative data gathering methodologies. Data gathering methods included an interview guide, focus group discussions (FGDs), and key informant approaches. These technologies were used to acquire both primary and secondary data.

The researchers utilized a tape recorder to record the Focus Group Discussions. The parties gave permission for the talk to be audio-taped. Instead of their original names, all conversation participants received a unique participation number. Each participant began their contribution by mentioning their tag numbers to guarantee that data were associated with participants. The conversations were transcribed and analyzed. The transcription was completed in an orderly manner, with a verbatim replication of every phrase, including stutters, pauses, mannerisms, and other movements./nonverbal cues were all equally recorded.

The researchers also observed attitude and demeanor, body language, and emotions during the data collection process. This gave the researchers information on whether the participants' facial expressions matched the uttered words.

5.6. Data Analysis

The data was coded and examined using thematic content analysis. Thematic content analysis was carried out using both deductive and inductive analysis. The taped interviews were carefully listened to three times before being transcribed by two independent researchers and juxtaposed to ensure accuracy and control for inconsistencies. Before analysis, the transcripts were read several times to gain a more full understanding.

This study's materials included interview guides, in-depth interviews, and focus group discussion guides. Data collection and transcription training was provided to research assistants. Following transcription, the data was coded, and teams formed from the data were used to study it. The data was analyzed and then interpreted by the researchers for easy understanding.

5.7. Rigor

The study was guided by Guba and Lincoln's evaluative practice [9], to ascertain data reliability and accuracy, including dependability, credibility, transferability, and conformity.

In other to ensure data reliability, authorities in the relevant authorities were contacted for the preparation of the focus group discussion guide, interview guide, and in-depth interview guide for data analysis to ensure reliability.

To establish credibility, interviews were conducted within an appropriate time frame.

To ascertain transferability, the snowball and purposive sampling techniques were used for data collection from diverse participants with much diversity taking in to consideration [9].

After the interviews, participants were promised of a debriefing on the transcripts for member verification following data transcription.

It has been stated that social science research frequently encounters ethical issues [21]. One such debate, the author claims, was whether doing a secret research was a good idea. The author claimed that clandestine research on societal issues, such as prostitution, drug dealing, and drug peddling, deserves extensive consideration. As a result, participants were given the option of participating or not participating, and their secrecy was guaranteed.

6. Results

6.1. Factors Perceived to Contribute to the Usage of Tramadol

In this study, tramadol misuse was defined as the use of tramadol without a doctor's clearance. Tramadol dosage limitations of 50 mg and 100 mg in tablets and capsules, as well as 50 mg/ml-2 ml in injections, have been approved by the

FDA for use in Ghana; however, any intake beyond these amounts is considered abuse.

The findings of this study revealed that the majority of participants used tramadol on a daily basis. The narrations of the tricycle drivers at the various stations yielded the following results.

A tricycle driver from the Aboabo terminal explains that:

I take tramadol to stay awake while transporting people from Aboabo to Nyohini and Lamashegu from buses who arrive at 2 a.m. I make a lot of money at night. A destination that would ordinarily cost 2 cedis in the daytime will cost 15 cedis at night. Because tricycle drivers are not available during certain hours, travelers would have few options.

(Number 10, FGD, Aboabo tricycle terminal).

It was revealed that psychoactive medicines, particularly tramadol, are frequently prescribed to novice trike operators as a way to relieve tension and weariness. During a focus group discussion, a participant stated that tramadol provides them energy and helps them hustle.

I hustle on the street to make a living. Tramadol motivates me to work more."

(Number 1, FGD, CBG terminal).

It was also discovered that several tricycle drivers abuse tramadol based on their own experiences. A participant offered the following observation regarding why he takes tramadol without a doctor's prescription:

"I had an accident with my trike and was in excruciating pain. I couldn't sleep, so my doctor recommended tramadol for me. And when I took it, it relieved my agony. I had no idea such a medicine could alleviate pain so effectively. So if I feel some minor discomfort in any part of my body, I just go to the pharmacy and obtain some tramadol to buy."

(Number 3, FGD, CBG terminal).

A passenger also made the following observation in an in-death interview Thus:

We were four passengers and the driver making five. Three were at the back and one in front with the driver. All of a sudden we heard the passenger front shouting our man is sleeping by the time we realize we were in a gutter and this driver was still sleeping while people are struggling to bring us out. We were told later that he took tramadol.

Another passenger narrates her experience from hospital road as:

We took the tricycle from hospital to taxi station in town. By the time we got to Gulkpe Naa Palace we hear woooooo kpayi our tricycle has collided with other vehicle and our driver was still sleeping in that process. Later revelations indicated that the tricycle driver was under the influence of tramadol.

6.2. Knowledge, Attitude and Practice of Tramadol

The majority of participants in the study learned about tramadol via their peers. The researchers conducted in-depth interviews to determine where tricycle drivers learn about

tramadol.

The findings revealed that tricycle drivers in the Tamale Metropolis had generally fair understanding of Tramadol. Many of the participants stated that Tramadol is not an unlawful drug, although few were unsure.

This finding is confirmed by a key informant at the Motor Traffic and Transport Unit in Tamale, who said that the increased incidence of accidents in the Tamale Metropolis is a result of high illiteracy among tricycle riders, most of whom he stated are into drugs and lack understanding of the repercussions of such drugs especially tramadol. He observed thus:

"Tramadol has a wide range of consequences on our health. The young lads here simply take it to give them energy to work, and they soon find themselves in troubles and they could have situations they cannot avoided if they had known the outcome of this medication. Many traffic accidents are caused by tricycle drivers using tramadol. Arresting them today may result in threats from their leaders and politicians, but we are not concerned. We shall continue to perform our legitimate duties."

(KI, MTTU, Ghana police service).

Furthermore, some individuals wrongly associate all pain-killers with tramadol. This was validated during a focus group discussion when a participant was asked the quantity of tramadol he takes after responding yes to using tramadol, he observed the following:

I was told tramadol the only painkiller by a drug store owner. So any time I feel pains I go to the store to buy tramadol and it solves my problem of bodily pains.

(Number 10, FGD, ADB)

In the same FGD, a participant asserted the following:

"When I take it with the capsule, it makes me melancholy, inattentive, and itching in my cheeks. People will scratch their cheeks because the capsule causes itching.

(Number 1, FGD, Access Bank)

At the GCB terminal, a participant reported thus:

Mixing cream cracker with tramadol powder and stirring with hot water until it became starchy before consuming. It is the most effective approach to improve sexual performance.

(Number 1, FGD, CBG terminal).

It was also discovered that particular types of ingestion have different jargon names associated with them. Mixing tramadol with marijuana was identified as "Tar", and disconnecting the capsule and eating the powdered substance after throwing the coats is named "Leaning", as confirmed by the following participants:

I take tramadol by 'leaning' it. Because it is the most effective and convenient option. You merely need to unplug the capsule, place the powdered contents in your palm, and lick them. And you're good to go.

(Number 9, FGD, ADB terminal).

6.3. Sources of Tramadol

The data revealed that the majority of individuals obtained

the substance from the Tamale Forest. Out of fear of getting imprisoned, the majority of participants choose to obtain tramadol in the forest. One tricycle driver reported going to the forest daily to get tramadol due to fear of being harassed or arrested if he went to the pharmacy without a prescription. He narrated his first time experience as follows:

The first time I went to the pharmacy to buy tramadol, everyone looked at me strangely. They inquired about the prescription, including who would take it and what the user intended to use it for. I was so embarrassed that I had to lie. I resolved never to return to the drugstore to purchase the medicine again. So, whenever I need it, I drive my tricycle to the Gumani forest and obtain some."

(Number 2, FGD, Aboabo terminal).

Also, when asked how they are able to obtain the drug from the pharmacy without a prescription, one participant stated that pharmacists may have a restrictive attitude if they suspect you of being a spy.

A participant stated,

"As a result of Anas' exposure, everyone is on guard." They are concerned that you are surreptitiously taping the entire episode, so if you are not a regular client or are not well-known, they will most likely treat you unfairly. But if they know you, you have no reason to fear at all."

(Number 5, FGD, CBG terminal).

Another person added that:

"You don't even need to tell them you need tramadol; just say the amount and they'll understand. For instance, I'd want to buy 250 or 150. They understand you're talking about Tramadol and will get it for you"

(Number 8, FGD, CBG terminal).

6.4. Dosages Taken by Users

The desire for an initial sensation or pleasure is what causes tramadol users to settle comfortably on higher dosages of 250 and 500 mg. According to a Key Informant, taking tramadol for the first time causes a distinct sensation. The more you use tramadol, the less likely you are to feel that way again. This causes users to transition to a greater dosage or milligram than before, totally rejuvenated in their belief that they would get the original feeling they got previously." (Number 1, KII, CBG terminal)

The above usage supports the findings of Kolawole, et al., [19] in Lagos State, Nigeria where they studied the combined effects of ingestion of codeine and tramadol among Albino male rats.

6.5. Frequency of Using Tramadol

The fact that the majority of participants take Tramadol on a daily basis supports its dependence potential. According to [20], indicators of psychological dependence on drugs include an increase in frequency of usage. The substance is used to get high, and the demand for the effect grows with

frequency of use, and when you don't get it, you feel really uncomfortable. During a focus group discussion, one participant stated that not taking medication for a day causes them to quiver.

(Number 1, FGD, ADB terminal).

A participant observed that if tramadol is not used on a daily basis, it can cause stiffness and falls.

(Number, KII Aboaboo Terminal).

6.6. Perceived Effects of Tramadol

According to the findings of this study, those who use tramadol are not aggressive; even when justified aggression is present, they choose not to be hostile. In a focus group discussion, one participant remarked that:

"After taking tramadol, we would apologize and want to make amends, even if we were having a heated disagreement".

(Number 12, FGD Participants, Aboabo).

According to reports, users' seizures are triggered by the situations they find themselves in and the way their systems react to those situations [18]. Participants in a focus group discussion attested to this. "Whenever I take Tramadol and don't eat afterward, I constantly have seizures," one of them said. (Number 5, FGD, Access Bank terminal)

Another participant said that:

Additionally, taking Tramadol and spending a lot of time in the sun might cause convulsions and finally death.

(Number 9, FGD, CBG terminal).

According to a key informant in a similar development, the impacts vary from person to person depending on the characteristics of their systems.

"The basic fact is that the effects apply to individuals differently depending on how their systems respond to the medications,"

The key informant clarified, that some people will take it and go to bed. Others will accept it and incur fees.

(Number 2, KII, CBG terminal).

According to the Tamale officer of the MTTU Directorate, tricycle drivers' usage of Tramadol is a contributing factor in eight out of ten incidents. Another challenge for the Metropolis police, according to the in-charge, was the regular obstruction of the police by relatives of accident victims when they were being taken to the mortuary for autopsy.

The officer observed:

We all know that this is a Muslim town, therefore if someone dies, they quickly go bury them. For this reason, I am unable to provide you with precise numbers of the number of fatal incidents caused by Tramadol. Eight out of ten accidents would be caused by the use of Tramadol, if we were permitted to transport the victims to the mortuary for an autopsy.

(KI, MTTU, Ghana Police Service).

6.7. Perceived Effects of Tramadol on the Mind

Investigations on the effects of tramadol use showed that the operators' vision was clouded. Tramadol hinders a rider's vision on the road, according to two tricycle accident victims who served as key informants at the accident ward of the Tamale Teaching Hospital. According to them, a rider with poor eyesight is more likely to be involved in an accident since having a good perspective of the road is essential for safe riding. This supports Donkor, [42] finding in Asutifi north district of Brong Ahafo region of Ghana where driver under the influence of tramadol are likely to put passengers lives at risk. The participants talked about how tramadol or other psychoactive medications can make it harder for riders to see road signs, pedestrians, or approaching cars.

One of the key informants opined that:

"You will have trouble seeing the road if you take tramadol right now and drive. You can't see the road well if your physique is weak. It is hard for me to notice the turns and curves of the road or other cars approaching me when I bike out on tramadol. My companions once collided with another car, and I once struck pedestrians.

(Number 2, KII, TTH, Accident Ward).

Riders who use tramadol have been found to have cognitive and motor impairments. Key sources claim that riding a tricycle is a delicate activity that requires a great deal of focus. They asserted that the rider had to constantly plan their actions to prevent getting into an accident. When using psychoactive substances, a rider's ability to reason and plan their movements is compromised. Participants thought that when using psychoactive substances impairs one's capacity to calculate and navigate, the likelihood of getting into a traffic accident increased. One participant said:

"Tramadol affects your head and thinking, so when you take it while riding, you won't be able to think and analyze things very effectively." On the road, you could make poor decisions that result in an accident. Tramadol will impair your ability to bike, thus you cannot take it while riding. We refer to it as a medication for this reason. Everyone is impacted.

(Number 1, KII, TTH, Accident ward).

7. Discussion

Before discussing the perceived consequences of tramadol use among tricycle drivers, the study looks at the elements that contribute to their use in the city. After discussing tricycle drivers' attitudes and knowledge about tramadol usage, it looked at how they felt about their psychological well-being in relation to tramadol abuse.

7.1. Tricycle Drivers' Use of Tramadol Is Caused by Certain Factors

The results showed that the majority of participants em-

ploy tramadol while discussing their motivations. Tramadol is taken by some individuals in order to be physically active. When drivers were asked to enumerate the reasons they used tramadol, this became apparent. This is in line with the findings of Fuseini et al., who also found that most tramadol users find that the medicine gives them the energy they need to carry out their daily tasks without feeling exhausted or to relieve stress following a demanding workday in keeping with this claim. Tramadol enhances task performance, according to a randomized controlled trial by [5].

However, the results are in stark contrast to those of Waheed et al., [37] who found in their study that tramadol significantly increases drowsiness and dizziness while lowering the risk of chronic depression. Similar to this, Balogun et al., [8] noted that tramadol might cause fatigue and vertigo instead of vigor, especially when taken in large quantities.

The results also showed that most of the individuals used medications, including painkillers, to treat their pain. This is in line with Terman's [35] recommendation that tramadol be taken to treat both acute and chronic pain. According to him, doctors use tramadol as a potent treatment for both acute (such as pain following surgery or trauma) and chronic (such as pain from cancer) conditions. Furthermore, after describing two instances in which participants experienced a significant change in their mood after taking tramadol, a systematic investigation validated the undeniable effect that the drug has on reducing pain [26]. Similarly, Uppal & Jayatunga, [36] reported in their study that patients in regular wards that are without intensive continuous monitoring do take in tramadol at the blind sight of the physician to avert labor discomfort, and catastrophic pain.

This study also revealed that participants were engaged in the use of tramadol simply because their friends or peers are into the tramadol-taking business. In agreement with this finding, a qualitative study conducted by Elwy & Tabl, [14] indicates how peer influence is a crucial driver in tramadol use. The author reported that the influence of peers is a significant factor in many teens' tramadol use and is critical in the formation of their behavior. Furthermore, in their study, Alhasan et al., [5] found that people who had friends who used tramadol and other drugs were more likely to abuse drugs than people without such connections. The findings also supports a study on the causes of addiction conducted in Egypt, which found that peer pressure was the primary cause of addiction for 50% of the participants. According to reports, tramadol dependence in Saudi Arabia started when users acted under the influence of their buddies [12].

7.2. The Use of Tramadol and Its Perceived Effects

According to the study's findings, most participants strongly disagreed that taking tramadol causes respiratory failure, indicating that the drug does not cause respiratory failures. This result is consistent with that of Shuai et al.,

[32], who claimed that intramuscular tramadol injection did not result in respiratory depression in neonates and that intravenous administration would result in significantly reduced respiratory depression. This is in fact consistent with a research by Shuai et al., [32], who found that tramadol did not result in clinically significant respiratory depression at the approved therapeutic dosages.

Perananthan and Buckley [27] observed that the use of tramadol at high dosages and over prolonged periods of time results in adverse effects such as respiratory depression. Similarly, it was noted that using tramadol may result in respiratory failure [25].

Additionally, the study discovered that using tramadol did not cause seizures, anxiety, sadness, aggression, or inattention. According to a study by Mehrpour et al., [24], these symptoms only appear when a tramadol user attempts to stop using the medication for a while. They stated that among the symptoms that people experience during withdrawal include anxiety, despair, anguish, severe mood swings, hostility, convulsions, tremors, and exhaustion.

The results also concur with a large body of research that questions whether tramadol can cause seizures. According to Gardner et al., [16], tramadol only induces seizures in humans when given in large quantities to epileptic individuals or in combination with other medications that cause seizures. In a similar vein, Gardner et al., [16] claimed that seizures have a mere <1% risk of occurring among tramadol users.

This result, however, was in contrast to that of Nakhaee et al., [25], who denied the claim that tramadol can induce seizures even when taken as prescribed and without the presence of any other drugs. The study also demonstrated that using tramadol can lead to drug dependence.

Zabihi et al., [39] in Northern Iran in 2007-2008 corroborate this finding. About two-thirds of the 162 people in their study reported having a dependency. The usage of tramadol was found to have a substantial potential for dependency. Zebala et al., [40] acknowledged the dependence, but only if the person had taken the medication repeatedly. Although tramadol seems to have a low dependency rate when compared to more powerful alternative analgesics like heroin, they contended that it is evident that repeated tramadol dosages can result in tramadol physical dependence that is comparable to that of other opioids, and that caution must be taken when giving tramadol to a person who is at risk of substance abuse.

7.3. Tramadol Use: Knowledge, Attitude, and Practice

According to the study, users of tramadol knew a reasonable amount about the drug in general. A significant portion of the participants said that tramadol is not illegal. Further investigation revealed that several participants mistakenly believed that all painkillers were equivalent to tramadol. This result supports a survey by Anetor & Oyekan-Thomas [6],

which showed that many drug abusers are unable to accurately describe tramadol medications. They also implied that a large number of participants were unfamiliar with medicines that were classed as tramadol and could not tell tramadol from other opioids that were misused.

It was noted that most participants lacked sufficient understanding of the risks connected to tramadol usage.

According to a study on teen substance abuse by Bassiony et al., [10], participants had little awareness of the negative effects of tramadol misuse. On the other hand, Soremekun [33] disagreed with the study's findings, which indicated that most participants occasionally become aware of the impacts yet must continue.

Additionally, this study revealed that tramadol users were introduced to the drug by their classmates or acquaintances. This result confirms that of Ansari H. [7], who examined the critical evaluation of knowledge, attitude, and prevalence of drug addiction among adults and adolescents in Lagos State, Nigeria, using tramadol as a case study. He discovered that most participants acknowledged that they obtained information from peers and friends. This supports findings of Soremeku et al., [31] on prevalence and perception of drug use among secondary school students in Lagos State, Nigeria where majority of the student population were engaged in tramadol abuse.

Once more, the study's results demonstrated that most individuals consume tramadol by mixing the powdered medication into energy beverages. The study carried out in Wassa Amenfi, Ghana, supports this, showing that participants reported consuming tramadol mixed with an energy drink (9;17).

According to the survey, users of tramadol reported taking the drug's powdered form. This discovery was corroborated by Perananthan & Buckley's [27] research, which also revealed that tramadol users occasionally ground the pills into tiny bits for licking (a practice known as "snorting"). Additionally, Barbosa et al., [12] concurred with this finding and noted that licking was common because of the anticipated benefits (noting the instant high and feeling good).

Nearly half (44%) of the participants "Always" removed foreign objects before licking, with an equal percentage stating that they preferred the drug in the powder alone for a more instantaneous high (16%) or that they didn't like the shell's characteristics, such as being sticky, annoying, or burning their nose, or that they got dust in their nose (16%).

Once again, the study discovered that participants administer tramadol intravenously. This conclusion is supported by Abd El-Azim [2], who said that the intravenous route is recognized as one of the most common ways to provide tramadol in Egypt. In Egypt, his research found that the most common delivery modalities were oral in 46.8% of cases and intravenous in 40.3% of cases.

An further observation regarding tramadol use. He believed that tramadol's effects are regarded as being more intense when it is licked, snorted, and injected. He said that

although tramadol pills are meant to be used orally, they shouldn't be broken up and used for injection or inhalation. Tramadol is more effective at overdosing and may have negative side effects, such as seizures, when it is inhaled or injected because it intensifies the effects reported by the user, allowing large amounts to enter the bloodstream [38].

Tricycle drivers' perceptions of their mental health in relation to tramadol abuse.

The results of the study showed that tramadol does not impair a person's memory of events or their capacity to carry out tasks; rather, it change users' perceptions without causing blackouts.

This result confirms the findings of Saapiire et al., [28], who found that participants remain in the practice for a range of physical and psychological benefits, such as increased energy and attentiveness. Similar findings regarding memory, focus, and attentiveness, as well as a feeling of hope, were reported by Saapiire et al., in [28]. Some individuals cited alertness and attentiveness as additional explanation for their continuous tramadol use, leading them to conclude that the medicine makes them more focused, alert, and aware of their everyday activities. Once more, this result confirms the findings of Barbosa et al., [12], who showed in a randomized control study that tramadol affects persistent attention-related stimuli processing.

7.4. Conclusion

The causes of the prevalent tramadol use among Tamale's tricycle drivers have been clarified by this study. This study demonstrated the necessity of identifying peer pressure as one of the strong elements that frequently lead tricycle drivers to engage in tramadol usage, which is consistent with data from other nations.

Tramadol-using tricycle drivers had a reasonable understanding of the drug, and the more educated the participants, the more aware and knowledgeable they were about the drug. The average daily dosage (milligram) of tramadol consumed by tricycle drivers in the city of Tamale was high.

This study found that probable side effects of tramadol use include nausea, dizziness, tiredness, and car accidents. Other side effects of tramadol use include respiratory problems, anxiety, depression, aggression, seizures, inattention, and difficulty focusing.

Tramadol can cause psychological side effects such as clouded vision, hearing, and coordination issues, as well as a diminished capacity for exercising sound judgment.

Finally, because tramadol misuse among tricycle drivers is on the rise, its availability in the Tamale city should be rigorously regulated. The moment to take action is now, and this is a serious issue that requires a coordinated effort to solve.

Abbreviations

FDA	Food and Drugs Authority
MTTU	Motor Transport and Traffic Unit
Mg	Milligramme
WHO	World Health Organization
GSS	Ghana Statistical Service
TMA	Tamale Metropolitan Assembly
OCT	Over the Counter

Author Contributions

Salifu Abukari: Conceptualization, Data curation, Formal Analysis, Methodology, Project administration, Resources, Supervision, Validation, Writing – original draft, Writing – review & editing

Yussif Hamdan Adam: Investigation, Methodology, Project administration, Supervision, Validation, Visualization, Writing – original draft

Seidu Toufique: Data curation, Project administration, Resources, Software, Validation, Writing – original draft

Ethical Consideration

With reference number CHRPE/AP /196/22, the authors requested ethical consideration from the Kwame Nkrumah University of Science and Technology Committee on Human Research, Publication, and Ethics. The Kwame Nkrumah University of Science and Technology Committee on Human Research, Publication Ethics, accepted the study, which was based on people's opinions and did not involve any experiments. Prior to the interviews, each participant was requested to sign an informed consent form.

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Data Availability

Upon reasonable request, the corresponding author will make the datasets created and examined during the current work available.

The information is accessible through participant narratives.

Conflicts of Interest

The authors declare no conflicts of interest.

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