

RESEARCH TOPIC:

"An Examination of the Nature of Prank Calls To The National Ambulance Service (NAS) and Mitigation Strategies".

DECLARATIONS

STUDENT'S DECLARATION

I, Ruby Ntim, hereby declare that this research project is my own work and has not been submitted to any other institution for any award.


.....

DATE: 11th DECEMBER, 2025

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SUPERVISOR'S DECLARATION

I, the undersigned supervisor, declare that I supervised the preparation and presentation of this work in accordance with the guidelines for supervision of MA dissertation as laid down by the University of Media, Arts, and Communication (UniMAC).


.....

DATE: 11th DEC 2025

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DEDICATION

This thesis is humbly and lovingly dedicated to the precious lives that have been cut short due to prank calls. Each life lost is not just a number or a statistic, but a son, a daughter, a parent, a sibling, or a friend whose absence has left an irreplaceable void in the hearts of their families and communities. Their untimely deaths are a painful reminder that actions often dismissed as “harmless jokes” can carry irreversible consequences. In their memory, and with a renewed sense of responsibility, I commit this work as a solemn call to conscience — that no one should ever have to pay the ultimate price for another’s careless amusement. May their stories stir our collective humanity and awaken in us a deeper commitment to preserving life.

To my beloved family, specially to Awusivi, I also dedicate this work. Your unwavering love, encouragement, and sacrifices have been the steady anchor in the storms of this academic journey. Through your prayers, patience, and unshaken faith in me, you gave me strength when I faltered and light when the path grew dim. Every page of this work is, in some way, a reflection of the values you have instilled in me: perseverance, integrity, and compassion. I am forever grateful for your unending support.

Finally, this thesis is dedicated to the brave men and women of the National Ambulance Service, Ghana (NAS). Day after day, in the face of adversity, limited resources, and unimaginable pressure, you rise to answer the noble call of saving lives. Your courage, resilience, and selflessness stand as a beacon of hope in moments of despair. You embody the spirit of service, often unseen, sometimes unappreciated, yet indispensable to the survival of many. This work is not only about you but also for you — a tribute to your sacrifices, a recognition of your struggles, and a testament to the belief that your efforts will one day be fully recognized, valued, and supported.

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ABSTRACT

Emergency Medical Services (EMS) are in place to provide prompt, life-saving interventions at moments of crisis. In Ghana, the National Ambulance Service (NAS) has been assigned the responsibility for this critical role in the provision of national healthcare. However, its ability to undertake the task is constantly under threat from the growing scourge of prank calls on the national emergency line. Though prank calls may appear to be harmless or trivial behavior, their cumulative impact is considerable: they waste scarce resources, delay the response to genuine emergencies, discourage frontline personnel, and undermine the public's faith in the emergency care system. This study, therefore, sought to examine the character, impacts, and control of prank calls in Ghana's EMS environment, addressing a poorly served gap in the literature. The research was guided by three questions of inquiry: (1) what is the nature and pattern of prank calls received by NAS? (2) How do prank calls affect NAS personnel operations, morale, and public trust? And (3) what community factors influence the incidence of prank calls, and how can they be minimized? To answer these questions, a qualitative approach was used. Semi-structured interviews of NAS dispatch officers, on-duty EMTs, and residents across five urban districts in Greater Accra were conducted. Thematic analysis using open, axial, and selective coding, as guided by Charmaz (2014) and Creswell & Poth (2018), was used. Findings were addressed through several theoretical frameworks: the Theory of Planned Behavior (Ajzen, 1991), Diffusion of Innovations (Rogers, 2003), Communication Privacy Management Theory (Petronio, 2002), Systems Theory (von Bertalanffy, 1968), Relationship Management Theory (Ledingham & Bruning, 2000), and Situational Theory of Publics (Grunig & Hunt, 1984).

Findings revealed prank calls are not random or isolated but patterned behavior shaped by social, psychological, and structural forces. Dispatch officers indicated that they receive prank calls daily, with peaks on evenings, weekends, school holidays, and holiday periods, when there is idle recreation and minimal adult supervision. Types of prank calls involved silent calls, false emergencies, harassment, children's test calls, and misdialed non-emergency calls. This is an implementation of Rogers' (2003) Diffusion of Innovations theory, where prank calling, as with other social behavior, diffuses and is institutionalized among peer groups, particularly youth. Theory of Planned Behavior (Ajzen, 1991) also clarifies how pranksters' positive attitudes (viewing calls as entertainment), permissive social norms (peer approval), and low perceived risk (lack of sanctions) sustain the practice.

The consequences of prank calls were observed to be grave. Operationally, prank calls redirected ambulances, wasted gasoline, accelerated vehicle wear and tear, and took up scarce resources that could otherwise be used for genuine emergencies. This resonates with Systems Theory (von Bertalanffy, 1968), which further posited that spurious emergency calls, mistaken inputs here, interrupt throughput and output of the emergency system, and total efficiency. Psychologically, prank calls were also causing frustration, burnout, and demotivation for EMTs and dispatchers alike, in accordance with international studies (Regehr & Millar, 2014). These findings are consistent with Relationship Management Theory (Ledingham & Bruning, 2000), wherein mutual trust and commitment are emphasized to sustain morale and organizational performance. Finally, prank calls undermined the credibility of NAS in the minds of citizens because delays in response created an image of inefficiency. Communication Privacy Management Theory (Petronio, 2002)

explains how the violation of trust boundaries by citizens made them not grant trust to NAS, enhancing the reputational crisis even further.

Prank calls at the community level were attributed to ignorance of impact, children experimenting, inadequate civic education, and ineffective deterrence by the police. Measures in mitigation were education campaigns, caller identification systems, and sporadic legal enforcement. Participants, however, identified loopholes in consistency and coordination. Recommended solutions were enhanced school outreach, community watchdog programs, required service penalties for criminals, and sophisticated call-filtering technologies. These are congruent with both Systems Theory (highlighting coordinated sub-systems) and DOI (Rogers, 2003), which proposes that just as prank calling has spread as an anti-social act, proper emergency hotline usage can spread positively in the form of community role models and institutional reward.

Finally, prank calls are both a behavioral and systemic issue. They are driven by permissive cultural norms and lack of awareness as well as destabilizing functional effectiveness, subverting morale, and eroding public trust. The findings confirm and extend earlier studies of emergency hotline misuse (Wankhade, 2016; Ibrahim et al., 2018) and place the phenomenon in Ghana's underdeveloped EMS landscape. The study contributes theoretically through integrating behaviorist, organizational, and public communication theories to explain prank calling as a multi-dimensional phenomenon. In reality, it requires a multi-stakeholder response that includes grassroots awareness, technological invention, mobilization of the community, and persistent enforcement. Significantly, the study highlights that each prank call has life-threatening consequences, thus an imperative matter of public safety that requires persistent scholarly, policy, and community attention.

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CHAPTER ONE

1.0 INTRODUCTION OF THE STUDY

Emergency Medical Services (EMS) are a crucial part of any healthcare system, capable of providing quick response and pre-hospital treatment during life-threatening emergencies such as road traffic accidents, cardiac arrests, obstetric emergencies, and other medical crises. In Ghana, the National Ambulance Service (NAS) was established in 2004 to meet the growing need for organized pre-hospital emergency care (Agyemang, 2019). The Service operates nationwide with the mandate to deliver emergency medical services promptly. However, the success of NAS has been hampered by operational challenges, among which prank calls are one of the most widespread and disruptive.

Hoax or false prank calls to emergency services when there is no real need are a worldwide problem for EMS providers (Lee, 2016). In many countries, they make up 20% to 40% of all emergency calls, putting additional strain on already limited resources (WHO, 2018). In Ghana, anecdotal reports and media investigations have highlighted that prank calls account for a disproportionately high percentage of calls to NAS, sometimes exceeding 60% of total calls (Daily Graphic, 2020). This wastes limited resources, delays responses to genuine emergencies, and increases the risk of unnecessary deaths.

The effects of prank calls go beyond operational inefficiencies. For example, every unnecessary dispatch wastes fuel, ambulance mileage, and medical supplies, further contributing to staff fatigue and frustration (Boateng & Owusu, 2021). More seriously, prank calls can cause ambulances to be diverted from real emergencies, leading to delays that could cost lives. Additionally, public trust and credibility in NAS are increasingly undermined when genuine callers experience response delays (Mensah, 2022). This vicious cycle threatens the effectiveness and sustainability of emergency medical responses in Ghana.

Despite ongoing public education efforts, prank calls continue, raising important questions about the motivations behind such behavior, the social and cultural factors that enable it, and the effectiveness of current countermeasures. A purely statistical approach might highlight how common prank calls are, but it wouldn't reveal the meanings, everyday realities, and

understandings of those most affected, namely, NAS staff, emergency operators, and community members. This is where qualitative research methods are best suited. As Creswell and Poth (2018) argue, qualitative research enables an in-depth exploration of complex social phenomena, uncovering not only "what" is happening but also "why". When it comes to prank calls, qualitative methods provide rich descriptions of the experiences, meanings, and negotiations involved from both NAS workers and the public.

Moreover, prank calls are not just nuisances but also social habits shaped by cultural attitudes, perceptions of state agencies, and civic responsibility levels. Lincoln and Guba (1985) note that qualitative research is especially appropriate for studying human actions in their natural settings, making it a vital tool for examining the socio-cultural forces behind prank calls. Through direct engagement with NAS staff and community members, this study aims to offer detailed explanations that numbers alone cannot provide.

On an academic level, researchers worldwide have called for more localized studies of EMS issues in low- and middle-income countries, where institutional constraints often exacerbate such problems (Al-Shaqsi, 2010; Kobusingye et al., 2017). In Ghana, however, little research has specifically addressed prank calls as a workplace issue. Most existing evidence is anecdotal, drawn from media headlines or NAS press releases rather than systematic academic inquiry. This lack of empirical data creates a knowledge gap and hampers policymakers and practitioners from developing effective, evidence-based strategies to prevent prank calls.

This study aims to fill that gap by qualitatively analyzing the nature, scope, and effects of prank calls to the NAS, as well as proposing effective solutions. Using document analysis, interviews, and thematic coding, it will explore how prank calls are perceived, their impact on service delivery, and ways to reduce their incidence. The qualitative approach emphasizes the voices and insights of frontline workers, ensuring findings remain relevant and practical.

In conclusion, this research will contribute both theoretically and practically. It addresses a gap in the literature on EMS operations in Ghana and across Africa, and offers policymakers, NAS managers, and public health stakeholders specific measures to reduce prank calls, protect resources, and improve emergency response times. By tackling this overlooked yet critical issue,

the study aims to help restore public trust, save lives, and strengthen Ghana's pre-hospital emergency care system.

1.9 BACKGROUND TO THE STUDY

Emergency Medical Services (EMS) are now an indispensable component of contemporary healthcare delivery because they represent the first point of medical care for patients with life-threatening illnesses. In countries that have very advanced EMS systems, such as the United States, United Kingdom, and Australia, pre-hospital emergency care significantly reduces morbidity and mortality by the rapid stabilization and transportation of patients to the concerned health facilities (Al-Shaqsi, 2010; Kruk et al., 2018). The World Health Organization (WHO, 2018) has emphasized that effective EMS systems are a cornerstone of universal health coverage since access to emergency care in a timely fashion is a basic right. In Ghana, the National Ambulance Service (NAS) was established in 2004 following the Accra Sports Stadium disaster in 2001, where over 120 football fans died partly due to the absence of an organized pre-hospital care system (Agyemang, 2019). It has since grown to be a nationwide service, provided by district and regional ambulance stations, with free call access via the 112 emergency number. It is responsible for the provision of rapid and competent pre-hospital care in the event of an emergency, ranging from accidents and obstetric emergencies to medical and surgical emergencies (NAS Annual Report, 2021). The expansion of NAS has contributed immensely towards bridging the gap between hospital-based care and patients, particularly in rural and deprived areas.

Despite its achievements, NAS faces a number of challenges, including inadequate financing, limited ambulances, staffing shortages, and logistical constraints (Boateng & Owusu, 2021). However, one of the most severe but less-debated challenges is the problem of prank calls. Prank calls, sometimes referred to as hoax or nuisance calls, are fake emergency calls made either as a joke or with evil intent and without any genuine need for assistance (Lee, 2016). Prank calls have been experienced in many countries, but that of Ghana is very alarming. Prank calls have been said to constitute the majority of calls to NAS, between 50% and 70% of all calls received in some regions (Daily Graphic, 2020; MyJoyOnline, 2021).

Prank calls take various forms in Ghana. They vary from those placed by children who dial emergency numbers out of curiosity or for fun to blatant hoaxes where individuals provide false information on emergencies with the intent to mislead dispatchers (Mensah, 2022). In other cases, prank calls can be traced to sociocultural views of public goods where citizens do not see

emergency services as valuable and thus do not bother to conserve them (Owusu, 2020). As compared to high-income countries, where prank calls are typically penalized through fines or imprisonment, Ghana has not been capable of enforcing sanctions effectively, in part due to ineffective legal structures and technological limitations in tracking callers (Kusi, 2021).

Prank calls have disastrous implications for NAS operations. Each prank call diverts scarce resources, including personnel time, ambulance fuel, and medical supplies, away from genuine emergencies. Dispatchers and paramedics routinely get frustrated upon realizing that resources have been wasted responding to phantom emergencies (Boateng & Owusu, 2021). More critically, prank calls can slow down responses to legitimate emergencies, with sometimes fatal consequences. For instance, if an ambulance is dispatched to a prank call in one part of a region, it may be occupied and thus not available to respond to an actual life-threatening emergency in another. This creates a "life-or-death trade-off" due to reckless behavior, as Agyemang (2019) describes it.

The consequences of prank calls extend beyond response time and wasted resources. They also undermine staff morale and public trust. Emergency responders, already under pressure on the job, may be demoralized when their services are repeatedly thwarted (Mensah, 2022). Conversely, the public will lose confidence in the credibility of NAS whenever ambulances are delayed, which can discourage members of the public from calling for help during actual emergencies. In a situation such as Ghana, where myths and misconceptions about ambulances are already prevalent among the public, prank calls further erode confidence in the service (Owusu, 2020).

At the policy level, prank calls pose a governance problem of serious concern. Although the NAS has attempted to conduct public sensitization campaigns to discourage hoax calls, the effect has been minimal. This suggests that prank calling is not merely an issue of ignorance but may be a manifestation of deeper socio-behavioral and structural problems (Kusi, 2021). Empirical data on the precise extent, nature, and effect of prank calls in Ghana are also scarce. Most of the evidence that does exist is anecdotal in nature, having been reported in the media but not subjected to rigorous academic analysis. This constitutes a gap in knowledge that prevents policymakers and NAS administrators from being able to develop effective, evidence-informed mitigation measures.

Qualitative research is a particularly valuable lens through which to examine this phenomenon because prank calls are not simply operational nuisances but also social behaviors whose frequency is determined by cultural values, public attitudes towards government agencies, and civic culture. As Creswell and Poth (2018) argue, qualitative research facilitates scrutiny of human experiences and the meanings people give to them. By foregrounding the lived experience of NAS personnel, dispatchers, and citizens, qualitative approaches allow for the unearthing of the underlying factors entrenching prank calls and their effects on service delivery.

The research, therefore, situates prank calls within both the EMS operational context and the sociocultural realities of Ghanaian society. By investigating the nature, frequency, and implications of prank calls, the research not only assists in filling the academic gap but also provides practical recommendations for NAS, policymakers, and public health actors. Ultimately, reducing prank calls is not simply an issue of reducing nuisance but of saving lives, conserving resources, and promoting the image of Ghana's emergency medical system.

1.9.1 EMERGENCY MEDICAL SERVICES PRANK CALL

Prank calls are alternatively referred to as hoax calls, nuisance calls, or false alarms and are intentional communications made to emergency services without any legitimate need for assistance. A prank call, according to Lee (2016), "is a deliberate false report of an emergency intended to deceive, amuse, or disrupt the operations of emergency responders" (p. 104). Similarly, the World Health Organization (WHO, 2018) characterizes prank calls as unsubstantiated emergency calls for intervention that divert resources from genuine cases. Prank calls in Ghana have typically been linked to individuals, mainly youths, who dial the free emergency line 112 out of curiosity, wickedness, or with the intent to mislead the National Ambulance Service (NAS) (Daily Graphic, 2020). Thus, for the sake of analysis in this study, prank calls are defined as any calls to the NAS toll-free number that are not indicative of a genuine emergency, but instead are placed to squander time, deceive responders, or disrupt emergency service operations. This is one of intentionality and separates prank calls from mistaken or wrong numbers called.

The prank call epidemic has attracted increasing amounts of worldwide attention because it has spread globally and caused damage to emergency medical response. United States and United Kingdom studies show that prank calls make up 20% to 40% of all emergency calls, wasting significantly the efficiency of EMS response (Fisher, 2017; Green, 2019). In Australia, for example, prank calls are recognized as an "emergency service abuse" that not only consumes the resources but also puts lives at risk (Johnson & Brown, 2018). Sub-Saharan Africa is impacted to a greater extent. According to Al-Shaqsi (2010), low- and middle-income countries face extra burden from prank calls due to limited EMS infrastructure, diminished fleets of ambulances, and inadequate funding. Ghana has been repeatedly put in the limelight over reports of an astoundingly high number of prank calls. The National Ambulance Service in 2020 reported that over 60% of calls made to the emergency line were prank calls, with some days recording 10,000 false calls made nationwide (Daily Graphic, 2020; MyJoyOnline, 2021). These calls range from children making the call for fun to individuals who deliberately fabricate incidents such as road accidents, fires, or childbirth complications.

Some of the impacts of prank calls have been realized by researchers:

1. Resource Wastage – Each untrue call leads to wasteful dispatches, burning fuel, medical supplies, and man-hours (Boateng & Owusu, 2021).
2. Delays in Reaching Real Emergencies – Ambulances busy with hoax calls are unavailable for real emergencies, resulting in unnecessary deaths (Agyemang, 2019).
3. Demoralization of the Staff – Paramedics and dispatchers feel demoralized and demotivated when they feel their work demeaned by relentless hoax calls (Mensah, 2022).
4. Erosion of Public Confidence – Repeated delays in response by ambulances drain the public's confidence in NAS, discouraging people from seeking emergency care when it is truly needed (Owusu, 2020).

Prank calls have been addressed through public awareness campaigns, collaboration with telecommunication providers to identify repeat perpetrators, and calls for tougher legal sanctions. However, researchers assert that these interventions have had limited success because they focus on addressing prank calls as a specific behavioral problem and not a socio-cultural problem that has to be understood in depth (Kusi, 2021).

While prank calls have been examined elsewhere, systematic academic writing on their nature, frequency, and implications is limited in Ghana. What is available is largely anecdotal, appearing in the print media or being highlighted by NAS press releases, without research-based qualitative investigation (Daily Graphic, 2020; MyJoyOnline, 2021). This leaves a gap in knowledge in three key areas: Nature – There is no research-based information on who the prank callers are, what type of hoaxes are common, and what is the nature of the perception by the dispatchers and the paramedics.

Frequency – Although there are estimates (e.g., NAS reports of over 60% prank calls), there is no detailed breakdown of trends for different communities or for different types of calls.

Implications – While wasted resources and delays are acknowledged, less is said about wider social implications, for example, on the morale of employees, public trust, and community perceptions of EMS.

This study seeks to bridge such gaps using a qualitative method, which enables exploration of the lived experiences and perceptions of NAS staff and people in the community. By doing so, the study goes beyond statistics in attempting to create meaning of the reasons and meanings of the prank calls. According to Creswell and Poth (2018), qualitative research works well in investigating the social phenomena that are poorly studied and not well understood in context.

Hence, the point being made in this research is that prank calls are not only operational irritants but complex socio-behavioral issues founded upon popular attitudes towards emergency services, civic obligation, and perceptions of state institutions. Prank calls must be understood on the basis of the voices of the most immediately affected, NAS staff who receive and deal with these calls, and the communities where the calls originate. Through thematic analysis of qualitative data, this study will provide critical insights into the ways in which prank calls hijack emergency care in Ghana and propose culturally relevant, context-specific solutions for their containment.

1.1.2 EMERGENCY

An emergency is an unexpected event that poses a threat to life, health, property, or the environment and requires immediate attention to prevent death, disability, or injury (World Health Organization [WHO], 2018). When dealing with health, emergencies typically involve acute medical emergencies such as cardiac arrest, stroke, trauma, obstetric emergencies, or mass casualties when immediate pre-hospital intervention is necessary (American College of Emergency Physicians [ACEP], 2017).

Scholars highlight that emergencies are urgent and unpredictable, in that any hesitation in responding is likely to significantly reduce rates of survival (Razzak & Kellermann, 2002). Hsia and Baker (2013) explain that in low- and middle-income countries (LMICs), inefficient pre-hospital care systems contribute to preventable death due to the ease with which the chain of survival can be interrupted. Examples include inefficient infrastructure, inefficient coordination, and false alarms that can all delay responses. In Ghana, emergencies are, according to the Ministry of Health (2020), "situations that require immediate, effective action to save lives and reduce long-term health effects," positioning the National Ambulance Service (NAS) at the forefront of the country's healthcare delivery system.

This study contributes to such perspectives by emphasizing that emergencies are not simply clinical and operational challenges but also communication challenges. Although the literature has focused on the identification of emergencies and the imperative of early response (Hsia & Baker, 2013; WHO, 2018), fewer studies speak to the subversive effect of prank calls in destabilizing emergency care delivery. Prank calls to the NAS in Ghana divert limited resources, slow down dispatching ambulances, and evoke suspicion among communities and the Service.

Therefore, this study extends the debate by arguing that prank calls are an underemphasized but actual barrier to effective emergency response in Ghana. Through an analysis of the nature, prevalence, and implications of prank calls, the study seeks to highlight the ways in which false alarms undermine the emergency system's capacity to deliver life-saving interventions when actual emergencies arise.

An emergency is an unexpected event that poses a threat to life, health, property, or the environment and requires immediate attention to prevent death, disability, or injury (World Health Organization [WHO], 2018). When dealing with health, emergencies typically involve acute medical emergencies such as cardiac arrest, stroke, trauma, obstetric emergencies, or mass casualties when immediate pre-hospital intervention is necessary (American College of Emergency Physicians [ACEP], 2017).

Scholars highlight that emergencies are urgent and unpredictable, in that any hesitation in responding is likely to significantly reduce rates of survival (Razzak & Kellermann, 2002). Hsia and Baker (2013) explain that in low- and middle-income countries (LMICs), inefficient pre-hospital care systems contribute to preventable death due to the ease with which the chain of survival can be interrupted. Examples include inefficient infrastructure, inefficient coordination, and false alarms that can all delay responses. In Ghana, emergencies are, according to the Ministry of Health (2020), "situations that require immediate, effective action to save lives and reduce long-term health effects," positioning the National Ambulance Service (NAS) at the forefront of the country's healthcare delivery system.

This study contributes to such perspectives by emphasizing that emergencies are not simply clinical and operational challenges but also communication challenges. Although the literature has focused on the identification of emergencies and the imperative of early response (Hsia & Baker, 2013; WHO, 2018), fewer studies speak to the subversive effect of prank calls in destabilizing emergency care delivery. Prank calls to the NAS in Ghana divert limited resources, slow down dispatching ambulances, and evoke suspicion among communities and the Service.

Therefore, this study extends the debate by arguing that prank calls are an underemphasized but actual barrier to effective emergency response in Ghana. Through an analysis of the nature, prevalence, and implications of prank calls, the study seeks to highlight the ways in which false alarms undermine the emergency system's capacity to deliver life-saving interventions when actual emergencies arise.

1.1.3 MEDICAL SERVICE

Medical service is a broad term that encompasses systematic provision of health care activity, facility, and intervention to diagnose, cure, and prevent illness or injury, and therefore facilitate health and well-being (World Health Organization [WHO], 2010). It encompasses services delivered in hospitals, clinics, and out-of-hospital facilities such as ambulances and emergency care systems. According to Starfield (1998), medical services are the structured avenues through which populations access primary, secondary, and tertiary care, delivering preventive as well as curative health. Medical care is commonly classified: preventive care (such as immunizations and screenings), curative care (treatment and diagnosis of disease), rehabilitative care (facilitation of recovery after illness or injury), and emergency care, as immediate interventions made during life-threatening emergencies (Donabedian, 2003; WHO, 2010). Specialists assert that the quality of a country's medical service system plays a significant role in determining population health results, fairness, and resilience during crises (Frenk, 2010).

There are many studies that indicate that medical services are the pillars of any efficient healthcare system. For instance, Kruk et al. (2018) state that the quality, and not access, of medical services determines whether health systems will be capable of reducing avoidable deaths. In low- and middle-income countries (LMICs), like Ghana, medical service weaknesses tend to manifest in poorly equipped emergency care, ineffective referral systems, and lack of communication (Adeloye et al., 2018). In pre-hospital emergency treatment, ambulance system-delivered medical services are particularly important. They provide the initial line of medical contact for seriously injured or ill patients. However, authors like Razzak and Kellermann (2002) and Hsia & Baker (2013) note that in the majority of LMICs, ambulance services are either not well integrated into healthcare systems or constantly disrupted by operational problems, like false alarms and prank calls, which trap few resources.

While there has been considerable study on medical services in delivery models, quality, and access, relatively few studies address the problem of adverse disruptive factors such as prank calls that sabotage emergency medical services directly. In Ghana, the National Ambulance Service (NAS) has a statutory mandate to deliver pre-hospital emergency medical care nationwide. Nevertheless, prank calls have risen to become a steady nuisance, deflecting ambulances,

deflecting medical attention, leading to response delays in actual cases, and ultimately undermining the confidence of communities in the service. This study, therefore, contributes to the existing literature by foregrounding prank calls as a quiet but notable challenge to the effective functioning of medical services in Ghana's emergency response system. Unlike other past studies focusing on general inadequacies in emergency systems (Adeloye et al., 2018; Kruk et al., 2018), this study uniquely places prank calls as a communication barrier in medical services. Based on examination of their nature, frequency, and consequences, it offers context-relevant remedies for managing the challenge and establishing effective emergency medical care provision.

1.1.4 PRANK CALLS IN EMERGENCY MEDICAL SERVICES

Emergency Medical Services (EMS) are the pillar of modern healthcare delivery systems, with pre-hospital care, immediate response, and life-saving interventions in acute medical emergencies (Razzak & Kellermann, 2002; Al-Shaqsi, 2010). Proper communication, efficient resource utilization, and voluntary compliance from the public are essential for their success. Prank calls, i.e., false, misleading, or non-emergency requests to emergency services, are a major obstacle to EMS success, squarely undermining the pillars. How the Two Are Connected

Prank calls interfere with the working routine of EMS in certain respects. One, they result in misallocation of resources because ambulances, skilled personnel, and equipment are put to unnecessary use, reducing availability for real emergencies (Al-Shaqsi, 2010). Two, they result in increased response times for real emergencies, a factor that can increase mortality risk in cases of cardiac arrest, trauma, and stroke (Blackwell & Kaufman, 2002). Third, prank calls are also psychologically and professionally demanding to the dispatchers and the paramedics. Constant exposure to false alarms is frustrating, demotivating, and causes burnout, hence undermining the overall quality of service (Madianos et al., 2011). Finally, prank calls perpetuate public skepticism about EMS, particularly in countries where people are likely to doubt the legitimacy of state healthcare systems (Adeloye et al., 2018).

Emergency Medical Services (EMS) constitute the pillars of modern healthcare systems, providing pre-hospital care, rapid response, and life-supporting interventions in cases of urgent health crises (Razzak & Kellermann, 2002; Al-Shaqsi, 2010). Their success hinges on effective communication, effective resource utilization, and support from the general public. Prank calls, false, misleading, or non-emergency emergency hotline calls, are the key detractors from EMS success, directly weakening these pillars. How the Two Are Related

The EMS-prank calls relationship is two-way and detrimental and has operational, psychological, and social impacts.

1. Resource Misallocation

Prank calls add to the wasteful mobilization of valuable resources like ambulances, paramedics, petrol, and drugs (Al-Shaqsi, 2010). In low- and middle-income countries like Ghana, where EMS services are in short supply, diversion of ambulances for fake alarms means fewer vehicles on the road for actual emergencies (Afolabi, 2016). Misallocation not just adds to delay but also increases operating costs, straining an underfunded health system.

2. Late Response to Actual Emergencies:

There is no time to lose in emergency medicine. For conditions such as cardiac arrest, trauma, and stroke, survival drops sharply with every minute (Blackwell & Kaufman, 2002). Ambulances respond to fictitious calls when emergencies elsewhere are overlooked, resulting in avoidable deaths. This has a cascading effect where prank calls indirectly result in mortality and morbidity within communities (Osei-Ampofo et al., 2013).

3. Psychological and Occupational Stress on EMS Staff:

On-scene paramedics and dispatchers are most likely to experience the disorienting effects of prank calls. Long-term exposure to false alarms leads to frustration, decreased morale, and occupational burnout (Madianos et al., 2011). Paramedics who are sent to respond to emergencies only to realize that they were misdirected can become desensitized, something that would impact the quality of future actual cases. This erodes the feelings of responsibility, trust, and emotional stability required for EMS workers to perform at their optimum (Williams et al., 2018).

4. Erosion of Public Trust in EMS

Prank calls also have a broader effect on society by making the public suspicious of EMS. In cases where people are already suspicious of the efficacy and timeliness of state-provided healthcare systems, repeated occurrences of ambulances dispatching to fake calls undermine confidence in the service (Adeloye et al., 2018). Such mistrust can discourage citizens from utilizing EMS during real emergencies as well, further negating the goal of universal access to timely emergency care.

The relationship between prank calls and Emergency Medical Services (EMS) transcends the instantaneous operational problems and penetrates the whole emergency care system. The calls have ripple effects both clinically, economically, psychologically, socially, ethically, and systemically, thus compromising EMS sustainability and credibility.

Operational Disruption – Prank calls disable dispatch centers by creating false alarms that inundate communications and dispatcher capacity. Each false emergency generates backlogs, delaying responses to real cases requiring urgent medical attention (Clawson & Dernocoeur, 2006). In already stressed systems with compromised ambulance and workforce availability, such as Ghana, operational disruptions can significantly impair service responsiveness.

Clinical Impacts – Ambulances and personnel are diverted to non-existent emergencies while real patients in need suffer from delayed treatment. This is particularly critical with time-sensitive issues such as stroke, cardiac arrest, and trauma, where a matter of minutes can be the difference between life and death. Studies demonstrate that delayed EMS response actually amounts to more preventable morbidity and mortality (Blackwell & Kaufman, 2002). Prank calls literally undermine clinical effectiveness.

Economic Cost – Every prank call consumes scarce financial and material resources. Fuel, medical equipment, and staff time are wasted on unnecessary deployments, contributing to operating costs and draining money that could have enhanced system infrastructure. In Ghana, where EMS financing remains low, prank calls exacerbate resource shortages and erode long-term system resilience (NAS Annual Report, 2020).

Psychological Burden – EMS staff, including dispatchers and paramedics, incur serious psychological strain answering nuisance calls. Dispatchers become frustrated and annoyed answering repetitively false alarms, whereas paramedics jeopardize their safety to answer high-speed runs during non-real emergencies. This eventually leads to poor morale, compassion fatigue, and burnout, which undermine the quality of patient care (Madianos et al., 2011).

Social Impact – Apart from the EMS staff, prank calls also undermine people's trust in the system. When citizens already entertain doubts regarding state-instrumented health interventions in general, regular postponement owing to prank calls reinforces the negative perceptions. This can force communities to shun EMS in toto and instead turn to taxis, private vehicles, or even traditional healers during emergencies (Adeloye et al., 2018). This utilization once more jeopardizes the patients because untrained bearers cannot provide pre-hospital care.

Ethical and Legal Challenges – Prank calls raise serious ethical challenges of responsibility and justice when it comes to the use of resources. They are squandering scarce public resources and endangering actual patients in need. Such acts are criminalized in most jurisdictions, yet it is still restricted in Ghana to permit the vicious cycle to proceed unchecked (Razzak & Kellermann, 2002). The absence of deterrent policies not only reinforces prank culture but also challenges governments' moral responsibility to protect healthcare systems from abuse.

Systemic Weakening – In addition to immediate disruptions, prank calls distort EMS statistics. Dispatch logs, which are critical to system planning, monitoring, and emergency readiness, are rendered unreliable when inflated with bogus calls. This compromises the policy and EMS administration's ability to forecast demand, locate resources, and prepare for large-scale emergencies such as epidemics or disasters (Mould-Millman et al., 2015). Prank calls thus compromise not only individual patient outcomes but also nation health security.

Prank calls have been described by research as a pervasive threat to the operational efficiency of Emergency Medical Services (EMS) for many years. Clawson and Dernocoeur (2006) call prank calls a "silent epidemic" of emergency communication, a concealed yet insidious problem draining limited resources without yielding any public safety dividends. Prank calls are not isolated

annoyances but systemic interruptions undermining the foundations of pre-hospital emergency care.

In low-income contexts, the consequences are even more severe. Razzak and Kellermann (2002) argue that prank calls in low-income contexts worsen already compromised health systems by wasting scarce ambulances, equipment, and human resources. Instead of supporting service provision, prank calls retard the evolution of EMS as effective public health institutions. This is supported by Mould-Millman et al. (2015), observing that in the majority of African countries, prank calls are not merely operational nuisances but structural barriers that decrease the efficiency of pre-hospital care and destroy the public trust in emerging EMS systems.

The Ghanaian case illustrates this trend vividly. The National Ambulance Service (NAS) reveals that prank calls account for the majority of calls received by the national emergency line (NAS Annual Report, 2020). Such a trend has two serious implications: one, it undermines public faith in the credibility of the service; two, it promotes a culture of abuse in which the emergency line is treated as a means of entertainment, rather than a critical health service. This abuse translates to delayed response to actual emergencies, with potentially fatal repercussions for patients requiring instant care.

Despite these observations, the literature is limited in two important respects. First, while prank calls are known globally, there have been limited empirical examinations of their multi-dimensional impacts within Ghana's specific sociocultural and healthcare context. Secondly, limited research has progressed from problem description to offer actionable, context-sensitive mitigation strategies that are feasible in resource-constrained contexts.

Even though prank calls have been recognized as an important issue for EMS by global studies (Clawson & Dernocoeur, 2003; Adeloje et al., 2018), empirical research of the issue in Ghana is limited. It is this study's argument that prank calls are more than just a nuisance but instead represent a systemic threat to NAS's operational integrity. By discussing the nature, frequency, and consequences of prank calls, this research seeks to put into perspective their role in the wastage of resources, delay in responses, demoralization of personnel, and erosion of public confidence in emergency services. Contrary to previous research that is prone to considering prank calls as a

behavior or discipline issue, this research contextualizes the issue in the overall environment of public health and emergency management. It also emphasizes the need for specific Ghanaian socio-cultural and infrastructural context-specific mitigation strategies.

This study therefore seeks to address these lacunae by:

Examining the Pattern and Occurrence of Prank Calls – documenting the quantity, forms, and dominant trends of prank calls received by the Ghana National Ambulance Service, thereby giving a clearer picture of the extent of the problem.

Identifying Operational Effects – assessing the effects of prank calls on dispatch operations, including ambulance deployment, response time, and wastage of critical resources.

Exploring Human Effects – examining the lived experience of EMS responders, focusing on how prank calls affect their morale, professional identity, and level of service in the face of consecutive false alarms.

Promoting Mitigation Solutions – suggesting feasible solutions such as assertive public information campaigns, technological innovation such as caller ID and call verification systems, and legal structures strengthened to better sanction prank callers.

Prank calls and EMS are intimately related in ways that extend beyond foolishness; they trigger a cascade of events that waste resources, put patients at risk, demoralize personnel, and erode public trust in emergency care systems. By situating prank calls within the context of a pressing public health and emergency management problem, this study contributes not only to academic discourse but also to the practical strengthening of EMS in Ghana.

1.1.5 HISTORY OF THE NATIONAL AMBULANCE SERVICE (NAS), GHANA

The National Ambulance Service, Ghana (NAS) was commissioned in 2004 under the Ministry of Health, following decades of uncoordinated and disconnected emergency care across the country. Before its establishment, emergency care was primarily the mandate of hospitals, the Ghana Fire Service, the Police Service, and private clinics whose pre-hospital interventions were characterized by non-standardized protocols. Most of these accident victims or critically ill patients were transported to the hospital in taxis or personal vehicles, leading to delayed treatment and unnecessary deaths (Aikins, 2017). This gap having been observed, the Government of Ghana, along with international partners, created NAS as a national-level, structured emergency medical service (EMS) dedicated to the timely pre-hospital care, stabilization, and safe transport of patients. Early Development

In its nascent period, NAS started slowly with minimal ambulances and minimal trained Emergency Medical Technicians (EMTs). The EMS concept was relatively novel in Ghanaian society, and demand was initially low. Cultural preference was present for patient transport by taxi, commercial minibuses ("trotro"), or vehicles of family members (Adeloye et al., 2018). To these setbacks were also added false alarms to the emergency call line, which dissipated limited resources and disrupted timely intervention to actual emergencies. Despite all these setbacks, the Service slowly expanded, increasing both its fleet and personnel as well as initiating public enlightenment programs. Nationwide Expansion

NAS has grown to be a robust countrywide emergency response system over time. It currently operates 350 ambulance stations across all 16 regions of Ghana, with a minimum of one station located in nearly every district. The Service also coordinates 16 Regional Control Dispatch Centres, one of which is located in one of the 16 regions and operates answering emergency calls and dispatching ambulances in real time through computer-aided dispatch systems. As of the 2023 Annual Report, NAS employs a total of 3,344 EMTs, 2,497 of whom are males and 847 who are females. This is a considerable human resource investment in health, reflecting the growing emphasis Ghana has on emergency preparedness and resilience.

Regional Ambulance Station Distribution

The NAS stations are strategically distributed to ensure even access: Ashanti Region: 56 stations (the largest network, owing to high population density and urbanization).

Greater Accra Region: 44 stations (capital city and busiest road networks). Eastern Region: 37 stations. Central Region: 28 stations. Volta Region: 24 stations. Western Region: 23 stations. Northern Region: 20 stations. Upper East: 19 stations. Upper West: 15 stations. Bono Region: 15 stations. Bono East: 14 stations. Savannah Region: 13 stations. Western North: 12 stations. Oti Region: 12 stations. North East: 10 stations. Ahafo Region: 8 stations.

This spread highlights Ghana's effort to level the playing field for the availability of EMS in urban and rural/underserved populations, thus addressing healthcare inequalities.

NAS in Modern Ghana

In contemporary Ghana, NAS is the first line of response to medical emergencies, including road traffic accident cases, maternal-related complications, response to disasters, and public health emergencies. The operations are supplemented by technology-enabled dispatching systems, EMT training schools, and collaborations with institutions such as the Ghana Police Service, the Ghana Fire Service, and the National Disaster Management Organization (NADMO). In all that, challenges persist. The Service continues to face underfunding, excessive prank calls, inadequate infrastructural road networks that impair ambulance response, and a lack of high public awareness about EMS utilization (Mould-Millman et al., 2015). The hurdles affect operational efficiency and patient outcomes, particularly in rural areas.

The growth of NAS reflects Ghana's emphasis on universal health coverage and constructing health emergency preparedness systems. From a few ambulances in 2004 to a national fleet with thousands of EMTs and 350 ambulance stations, NAS is a turning point in healthcare delivery in Ghana. Besides healthcare, NAS reinforces national security and disaster readiness to provide integrated response to emergencies ranging from road crashes and floods to epidemic outbreaks. As this research highlights, even as the NAS has become an essential foundation of Ghana's health care system, ongoing operational issues like prank calls, limited resources, and misconceptions by the public need to be attended to in order to maximize its potential in terms of saving lives.

1.1.6 PRANK CALLS IN NATIONAL AMBULANCE SERVICE (NAS)

Prank calls have been among the longest-standing and most intrusive challenges confronted by the Ghana National Ambulance Service (NAS). Since the NAS was formally opened in 2004 under Ghana's initiative to enhance pre-hospital emergency care, prank calls have also been the most frequent calls received by its regional control centers. Figures by the NAS have all along indicated that over 70% of the calls made to the Service are hoax calls (NAS Annual Report, 2021; Mould-Millman et al., 2015). This is a trend that indicates that out of ten calls received via the toll-free emergency number, just two or three are real calls for assistance, while the rest are test calls, false alarms, or prank calls. Prank calls cite EMS literature as false or misleading emergency calls placed at emergency response points without any intention of reporting an actual emergency (Adeloye et al., 2018). For Ghana, the prank calls involve persons intentionally calling for reported fictitious accidents, medical conditions, or road crashes. In some cases, callers simply hang up without saying a word, engage dispatchers in unnecessary banter, or provide false information to non-existent scenes (Aikins, 2017). While some of the prank calls appear to be driven by curiosity or teenage mischief, others are proof of deliberate misuse of state resources.

The effects of prank calls on NAS operations are far-reaching. At the operational level, prank calls also waste resources and time because dispatchers and EMTs have to handle every call as authentic until it is established to be false. This translates to ambulances being dispatched unnecessarily, fuel consumption, and vehicles experiencing wear and tear—all paid for using tax funds (Mould-Millman et al., 2015). Financially, prank calls put a heavy burden on the state, given that each ambulance deployment consumes fuel, medicine, and man-hours that could have otherwise gone to actual cases (Adeloye et al., 2018). For a developing country like Ghana, whose EMS resources are already stretched thin, such wastage just erodes the system's ability to meet actual demands.

In addition to logistics and budget, prank calls also compromise response efficiency. Response time is a major determinant of survival in emergency care, particularly in conditions such as cardiac arrest, trauma, or obstetric emergencies. It leads to unnecessary complications or deaths for real patients when ambulances are diverted from prank calls (World Health Organization [WHO], 2020). This inefficiency in operation erodes the confidence of people in NAS, because

citizens who are exposed to late or failed responses may perceive the Service as untrustworthy and, therefore, create a cycle of mistrust and underuse.

Prank calls also exert psychological strain on Emergency Medical Technicians (EMTs) and dispatchers, who are trained to be forceful and urgent in their behavior under stress. Repeated exposure to false alarms can lead to frustration, burnout, and reduced morale among frontline workers (Mould-Millman et al., 2015). Moreover, prank calls can also endanger EMS personnel as EMTs might speed up while going to imaginary emergencies, leaving ambulances vulnerable to accidents en route.

The persistence of prank calls in Ghana is an exhibition of broader societal and behavioral problems. Analysts have argued that prank calls often stem from inadequate public information regarding the significant role EMS plays in the delivery of healthcare, as well as the lack of adequate punitive actions to deter perpetrators (Adeloye et al., 2018). The problem is particularly prevalent among young people, who might regard prank calling as a joke without appreciating the danger of death it exposes to others (Aikins, 2017). In some cases, prank calls may be motivated by suspicion of the system itself, where citizens test the reactivity of the NAS following prior experiences of slowness or inaction.

To counter this, the NAS has conducted public awareness campaigns to raise awareness among citizens of the dangers of prank calls. Through the media, radio, and television, and also community outreach programs, the Service has emphasized that prank calls endanger lives by distracting limited resources from actual emergencies (NAS Annual Report, 2021). Besides, the Service has consulted with telephone service providers and police forces on how to trace prank callers, though enforcement remains hampered by legal and technical limitations.

Despite these efforts, prank calls continue to pose a major impediment towards the advancement of Ghana's emergency medical services. This study argues that prank calls are no longer just interruptions to services but an institutional public health phenomenon that compromises trust, wastes scarce resources, and increases mortality risk. Thus, prank calls necessitate a multi-pronged approach, with stricter punitive legislation, continued public education, integration of call-screening technology, and community empowerment of EMS.

This research therefore seeks to enhance understanding of prank calls in Ghana's NAS, not only their frequency, but how they work, their economic effect, and their social impact, and then recommend strategic interventions to reducing their impact on pre-hospital care delivery in Ghana.

1.10 PROBLEM STATEMENT

In research, the problem statement is a critical section used to determine the central issue the study seeks to address. It provides a concise explanation of the research issue, its significance, and why the study is necessary (Creswell & Creswell, 2018). An effectively written problem statement not only establishes the basis of the research but also identifies the gaps in knowledge, theory, or practice that the research aims to fill (Kumar, 2019). In other words, the problem statement frames the phenomenon under investigation, places it within the context of prior learning, and frames the research aims, approach, and potential contribution. For this present research, the problem concerns the trend of prank calls directed at Ghana's National Ambulance Service (NAS). Existing reports detail that prank calls account for a dominant share of the calls received by NAS, in some cases reaching over 70 percent of total call volumes (Agyekum et al., 2021; GhanaWeb, 2022). These hoax calls undermine the operational efficiency of emergency medical services (EMS) by wasting precious resources, extending actual response times, and saddling dispatch systems with unnecessary burdens. Despite these alarming statistics, recent literature on emergency medical services in Ghana has, by and large, focused on broader systemic concerns such as poor infrastructural facilities, unavailability of ambulances, and inadequate personnel (Boateng et al., 2020; Opong et al., 2021). Thus, prank calls as a specific challenge to EMS delivery are not well-studied.

It is therefore also imperative not only to identify prank calls as a disrupting issue but to interrogate them as a communication and behavior problem with clear consequences for public health and safety. This study seeks to fill that gap by injecting empirical evidence and analysis of the extent to which prank calls affect NAS operations, what causative factors motivate this behavior, and what can be done to curtail them.

A peek at the research gaps is a fundamental component of formulating the problem statement. A problem cannot be well defended by just defining that it exists; researchers also need to decide what is missing from known knowledge, methodologies, or applications that their study will fill in (Maxwell, 2013). In this case, some gaps emerge:

1.2.1 ISSUE/EVIDENCE GAP

Emergency Medical Services (EMS) are supposed to render timely, life-saving interventions in situations of emergencies such as accidents, cardiac arrests, or obstetric complications. In Ghana, the National Ambulance Service (NAS) has been at the forefront of this endeavor, but its effectiveness is persistently undermined by prank calls, which distort the entire emergency response process (NAS Annual Report, 2021). While prank calls are dismissed as harmless distractions, their frequency and occurrence in the Ghanaian EMS context have reached a very high level. It is documented through official channels that more than 70% of calls received by NAS are prank calls, and a very limited percentage are genuine emergencies requiring immediate medical care (NAS Annual Report, 2023). Despite the seriousness of this matter, research has hitherto focused on discussing the broader systemic barriers to EMS utilization in Ghana and sub-Saharan Africa, such as inadequate ambulance coverage, understaffing, delayed response times, inadequate road infrastructure, and a lack of public awareness about EMS services (Osei-Ampofo et al., 2018; Adeloje et al., 2018). While these studies have advanced useful knowledge, prank calls have been treated mainly as an ancillary issue or only peripherally considered. Prank calls have been made a focal problem by a few studies, even as data grows that they affirmatively impede dispatch operations, waste precious resources, demoralize EMTs, and directly delay care for patients whose lives hang in the balance.

This creates a significant evidence gap: empirical data and scholarly analysis explicitly taking into account prank calls and their operational effects on NAS is limited. Without such targeted research, policy and intervention will likely remain generalized and ineffective as they do not account for the disruptive effect prank calls have on the EMS communication chain.

The current study tries to bridge this evidence gap by positioning prank calls as the central phenomenon of investigation. It does so by investigating their nature, trends, and operational implications in NAS. Through the generation of detailed empirical evidence, the study

conceptualizes prank calls as a major operational impediment to emergency healthcare delivery in Ghana, rather than merely a nuisance. In this manner, it produces a new contribution to knowledge that is able to inform policy and practice, contributing to the development of targeted strategies for reducing the occurrence of prank calls and streamlining the overall efficiency of EMS operations.

1.2.2 METHODOLOGICAL GAP

The majority of existing studies on Emergency Medical Services (EMS) challenges in sub-Saharan Africa and Ghana in particular have employed descriptive or quantitative methods, making use of surveys, structured questionnaires, or secondary analysis of hospital and ambulance service records (Mould-Millman et al., 2015; Boateng, 2021). These help generate numerical data on the scope of EMS problems, such as the number of ambulances per capita, emergency response times, or the ratio of calls that represent real emergencies to pranks. Employing quantitative designs, however, creates a narrow view by which prank calls are reduced, often to plain statistics without exploring their causes, significance, and effects. These approaches are limited in three ways. Firstly, they do not include Emergency Medical Technicians (EMTs), dispatch officers, and members of the public immediately subjected to prank calls in their understanding of lived experience. Second, they overlook the behavioral and socio-cultural factors of prank calls that may be affected by public distrust against institutions, government services conceptions, peer pressure, youth boredom, or the lack of knowledge regarding the seriousness of EMS activities. Third, only quantitative-only reports do not at all illustrate the psychological and operational distress prank calls inflict on frontline EMS workers, nor how they undercut community assessments of EMS credibility and trust.

This methodological flaw leaves a blind spot of critical significance: lacking qualitative knowledge, prank calls are only realized as a quantitative imposition on EMS operations, and not as the complex social phenomenon that it really is, worthy of nuanced, context-sensitive interventions.

The present study bridges this methodological gap by adopting a qualitative methodology. Specifically, it applies semi-structured interviews and thematic analysis in order to solicit the opinions of various stakeholders like EMTs, dispatchers, and residents of the community. The method allows for rich, narrative-type data that focuses on the voices and realities of those who are affected most by prank calls. By explaining the "why" and "how" of prank calls rather than just the "how many," the research provides a richer, contextualized understanding of the phenomenon. In so doing, it enhances existing quantified evidence with people-centered contextual observations, thereby broadening the methodological base of EMS research in Ghana.

1.2.3 CONTEXT GAP

Emergency Medical Services prank calls in the developed world of the United States, the United Kingdom, and other technologically advanced nations in Europe are minimal in terms of threats (Lerner et al., 2020). Prank callers are easily identified using advanced call-tracing technology, and the criminals face severe legal consequences, and the threat is therefore deterred. Accordingly, academic debate in such an environment inclines towards placing prank calls as occasional or sporadic interruptions instead of as endemic systemic disturbances. The Ghanaian environment presents a unique and lesser-explored reality. Ghana's EMS, provided by the National Ambulance Service (NAS), operates in an environment of lackadaisical enforcement of telecommunications law, a dearth of call-tracking apparatus to track calls, and a scarcity of finances to track traffic. All of these institutional weaknesses provide a context wherein prank calls not only exist but thrive. To boot, Ghana's socio-cultural dynamics, i.e., public distrust of government agencies, EMS unawareness, teenage playful abuse of toll-free emergency numbers, and problems with civic responsibility in general, continue to feed the problem, and prank calls become a routine operating and social hassle instead of an irritation. Even with such exceptional conditions, academic attention given to the particular Ghanaian example of prank calls is extremely negligible. The majority of the EMS literature in Africa predominantly presents in broad terms only issues of ineffective deployment of ambulances, limited funds, slow response rates, and low levels of training of EMS professionals (Adeloye et al., 2018). While such research is useful, it omits the behavior- and communication-related concerns such as prank calls that are important in shaping EMS

performance in Ghana. There is, hence, a gap in knowledge in the area of intersection of prank calls with EMS operations, culture, and legal environment in Ghana.

This current study fills the context gap by placing prank calls in the Ghanaian EMS context. The behavior is studied as not an imported or generic issue but one that has been shaped by the local operational, socio-cultural, and legal conditions of Ghana. Drawing on both the NAS staff and EMS providers, the study provides setting-related information in relation to how prank calls happen, why they remain such an issue, and most critically, how they affect the NAS in particular. It is notable that the study is strongly applicable to Ghana's country-level policy and practice of EMS but also to broad global EMS research by demonstrating how prank calls develop in low-resource and weak-enforcement environments. The contextual foundation of the study makes it a rightful reference guide for other sub-Saharan nations with comparable issues.

1.2.6 THEORETICAL GAP

The majority of research on prank calls to Emergency Medical Services (EMS) has been theoretical, where studies have been confined to the reporting of descriptive statistics or operational ramifications without situating the analysis in wider theoretical frameworks. Earlier research, for example, tallies the number of prank calls, calculates their financial cost, or documents their impact on response times, but stops short of offering more explanatory models of why such calls persist, how they spread, and how they influence overall citizen–institution relations. This descriptive emphasis limits both the predictive power and the broader generalizability of findings to new contexts.

There are limited efforts to apply communication or behavioral theory to break down prank calls as a social phenomenon, and not simply a nuisance. More specifically, there has been limited attention to models such as:

Diffusion of Innovations Theory (Rogers, 2003), which explains the manner in which new technologies or services (such as dialing EMS) are adopted, rejected, or even misused by different

groups within a population. Prank calls in Ghana may therefore be a case of maladaptive adoption, where citizens have awareness of the emergency number but engage with it in unexpected ways.

Relationship Management Theory (Ledingham, 2003), emphasizes the quality of trust, mutual respect, and communication between organizations and their publics. Applying this lens could possibly shed light on how prank calls are not simply individual pranksterism but rather symptomatic of broken trust between citizens and the National Ambulance Service (NAS), particularly in a context where public institutions are widely distrusted or perceived to be ineffective.

This absence of such theoretical mooring creates a theoretical vacuum, denying researchers and policymakers alike any possibility of situating prank calls within wider debates on technology adoption, institutional legitimacy, and public-service communication. Deprived of theory, prank calls remain treated as isolated events rather than as a patterned, socially embedded practice with structural underpinnings.

The present study fills this theoretical gap by adopting a two-theoretical strategy: Diffusion of Innovations Theory is used to examine how citizens learn about and use EMS technologies, and more significantly, why some adopt it responsibly but others misuse the system by making prank calls. This works to unpack prank calls as an adoption problem rather than simply an act of defiance.

Relationship Management Theory is applied to examine the NAS and the Ghanaian public's trust relationship. By analyzing prank calls as a breakdown in communication, the study illustrates how institutional mistrust, poor engagement, and the absence of ongoing education all contribute to EMS abuse.

Together, these two models provide explanatory and interpretive depth. They allow the study to frame prank calls as less random chaos and more as outcomes of structural communication failures, strained citizen–institution relationships, and incomplete technology uptake processes. By theorizing prank calls, this research moves EMS scholarship beyond operational issues to include behavioral, communicative, and relational concerns, allowing for a richer understanding for researchers and practitioners alike.

1.2.5 POPULATION GAP

In Ghana, most of the existing research on Emergency Medical Services (EMS) has tended to prioritize an emphasis on patients and hospital-based actors, e.g., doctors, nurses, and administrators. These studies have a tendency to examine issues related to the outcome of treatment, delays at hospitals, or the emergency care clinical dimension. While these perspectives are valid, they leave out, to a large degree, the wider set of actors who have direct contact with the ambulance service outside the hospital environment. The culture of prank calling makes this non-representation particularly difficult. Prank calls to the National Ambulance Service (NAS) do not occur primarily in hospitals but in pre-hospital and dispatch environments, where the service comes into contact with ordinary citizens. Limiting the study to hospital populations thus denies representation to the very groups most directly engaged.

A more accurate representation requires acknowledgment of several underrepresented groups, including:

Prank callers themselves, whose intentions and perceptions have yet to be investigated in the Ghanaian experience.

Genuine callers who could be discouraged from taking advantage of the service due to jammed lines or distrust caused by relentless prank calling.

Emergency Medical Technicians (EMTs) and dispatchers who shoulder the consequences of answering false alarms, wasted resources, and demoralization caused by repeated misuse of the system.

Community members who encounter or learn about prank call experiences develop attitudes towards the ambulance service based on this.

Exclusion of such groups in studies by academics provides only a partial and limited representation of EMS in Ghana. Failing to hear from them, studies would probably overlook the effect prank calls have on the effectiveness of services, service trust, and institutional reputation.

This study addresses the population deficit head-on by broadening the range of study beyond ambulances and patients. Specifically, it includes: EMTs and dispatchers, whose experiential understanding is suggestive of the day-to-day effect of prank calls on emergency response.

Community members, whose attitudes and behaviors determine whether or not the ambulance service is trusted, used appropriately, or abused.

By situating diverse analyses from service providers and the public, this study provides a richer and integrated evaluation of the effect of prank calls on EMS in Ghana. It situates prank calls simultaneously as an operational challenge to the work of EMS and as a social issue grounded on citizen behavior, community culture, and institution-public relations.

Lastly, aiming at this population shortfall guarantees that the findings speak not only to hospitals but also to the broader emergency care system, making the study more relevant both for policy reform and public education efforts.

1.3 RESEARCH QUESTIONS AND OBJECTIVES

1.3.1 Research Objectives

The overall aim of the research is to examine the nature and operational effects of prank calls on emergency dispatch operations within the National Ambulance Service (NAS) in Ghana, and identify ways of mitigating their impact.

Specific Objectives:

1. To examine the prevalence and methods of prank calls that have been received by the National Ambulance Service.
2. To examine the working implications of prank calls on dispatch efficiency, resource allocation, and EMT morale.
3. To explore the public's attitudes and perceptions regarding the ambulance service during times of prank call incidents.
4. To establish the effect of prank calls on citizens' trust relation with NAS.

5. To determine and suggest mitigation strategies (technology-based, communication, and policy-influenced) that can abate prank call incidents and improve EMS delivery in Ghana.

1.3.2 RESEARCH QUESTIONS

1. What is the nature and trend of prank calls to the National Ambulance Service?
2. How do prank calls affect emergency dispatch operations and the overall efficiency of NAS?
3. How do prank calls affect the performance and well-being of EMTs and dispatchers?
4. How do citizens perceive prank calls and the repercussions on EMS delivery in Ghana?
5. How do prank calls influence the public's trust dynamic with the ambulance service?
6. What steps can be drafted or improved upon to counter prank calls and maximize NAS operations?

1.4 SCOPE OF THE STUDY

The research is confined to the investigation of the phenomenon of prank calls in the operations of the Ghana National Ambulance Service (NAS). Prank calls, as harmless as they may appear, have grave operational, financial, and social implications for emergency medical services (EMS). Besides wasting scarce resources, they also prolong real responses and compromise public trust in EMS. To offer focus and manageability, the scope of this research is structured along four general dimensions: geographical scope, thematic scope, population scope, and temporal scope.

1.4.1 Geographical Scope

The research is conducted within the context of Ghana and focuses on the selected areas of operation of the NAS. Prank calls are a nationwide phenomenon, yet it is not feasible to cover all sixteen regions due to time, resource, and logistical constraints. The research, therefore, focuses

on urban and peri-urban centers such as Greater Accra, Ashanti, and Western Regions. These locations were chosen purposively due to three major reasons:

High Population Density: They are home to some of the most densely populated communities, which boosts both legitimate and prank call volumes.

Operational Pressure: These areas have some of the busiest NAS call centres, and hence are important locations to examine operational disruptions resulting from prank calls.

Representative Nature: Lessons from these locations can provide insights that can be applied to other areas that face similar issues, particularly those with expanding urban populations.

By restricting the geographical scope, the study ensures depth of investigation rather than broad but superficial coverage.

1.4.2 Thematic Scope

Thematically, the study is restricted to prank calls and their functional effects on EMS delivery. Other matters facing NAS, such as funding shortages, road traffic volume, fuel shortages, or ambulance deployment, are acknowledged but not explored in detail, unless they clearly overlap with the topic of prank calls. This deliberate limitation maintains the focus of the study on:

The nature of prank calls (types, frequency, and motivations).

The operational effects (dispatch delays, wasted resources, EMT burnout, and public distrust).

The communication and policy dimensions of managing prank calls.

Mitigation policies (such as technological solutions, public education, and stricter legislation).

By operating within this theme parameter, the study is not overly broad and renders its findings specific, applicable, and useful in addressing the prank call menace.

1.4.3 Population Scope

The research population comprises three groups that are related and at the core of the issue: Emergency Medical Technicians (EMTs) and Dispatchers – frontline responders who experience the effect of prank calls directly in their daily work. They provide insights into the operational load, morale, and decision-making issues arising from such calls.

Community Members – both repeat prank callers (wherever possible to identify) and the general community who know prank calls. Interestingly, some members of the community may refuse to call NAS at all because of a perception that prank calls make the service unreliable. Their perceptions guide an understanding of how prank calls impact public trust and health-seeking behavior.

Institutional Stakeholders – NAS administrators, policy makers, and communications officers. These stakeholders oversee strategy, public education campaigns, and regulation enforcement. Their perceptions are required to guide institutional responses and determine potential mitigation policies.

This tripartite coverage of the population ensures that both supply-side voices (NAS and EMTs) and demand-side voices (members of the community as users of the service) are heard, giving a balanced and holistic insight into the problem.

1.4.4 Temporal Scope

The temporal focus of the study is 2020-2025. This is significant as it aligns with a critical rise in public dependence on EMS in Ghana, especially during and after the COVID-19 pandemic. With a rise in public health emergencies, pressure on NAS operations intensified. Unfortunately, prank calls also rose within this period, worsening the issue for EMTs and dispatchers. With this time frame in mind, the study can place prank calls in the context of a modern and evolving health communication landscape. Although the wider context takes into account developments between 2020 and 2025, data will be collected in 2025. In so doing, the research guarantees that results capture the latest developments, without discounting historic trends that shape the current status quo.

The scope above delimits the study to prank calls as a specific operational problem within the field of NAS, to selected high-call-volume areas, three major population segments, and the 2020–2025 time frame. This sort of outline provides analytic specificity and ensures the study remains manageable and academically viable.

1.5 SIGNIFICANCE OF THE STUDY

The academic, practical, policy, societal, and research contributions of this research is in its value to the knowledge, understanding, and management of prank calls in Ghana's emergency medical system. In addressing prank calls, a problem that squanders finite health resources, disrupts EMS operations, and drains public trust, this research provides a comprehensive and multidimensional contribution.

Academic Relevance

From an academic perspective, the study fills an important gap in the literature on emergency medical services (EMS) in Africa. Academic studies of EMS in low- and middle-income countries (LMICs) have generally been concerned with problems such as access to ambulances, bad financing, bad infrastructure, and healthcare worker shortages (Adeloye et al., 2018; Lerner et al., 2020). Yet the prank call epidemic has received little systematic research despite its disruptive impact on work. By situating prank calls in communication and behavioral theory, in particular the Diffusion of Innovations Theory (Rogers, 2003) and Relationship Management Theory (Ledingham, 2003), this research moves beyond descriptive solutions. It provides an explanatory framework to explain why prank calls persist, how they spread, and how they affect trust among citizens and EMS providers. This approach adds to the theoretical literature on the use of EMS in low-resource settings by offering a theory-informed perspective where most previous research has been theoretical (Abor & Abekah-Nkrumah, 2019).

Practical Relevance

Practically, the study is invaluable to the National Ambulance Service (NAS). Prank calls are not just annoyances; they waste fuel, time, and manpower, divert ambulances from real emergencies,

and lower the morale of emergency medical technicians (EMTs) who risk frustration and burnout after answering false alarms (Osei-Ampofo et al., 2018). By the identification of the motivations and conduct behind the prank calls, this research offers recommendations toward the creation of context-sensitive public education campaigns, improved call screening practices, and improved training for dispatchers and EMTs. Moreover, the findings will allow NAS to build stronger relationships with its communities by understanding why some citizens prank call and why others won't call in true emergencies. The findings can improve trust building, participation, and proper use of services and ultimately optimize operational effectiveness, saving lives.

Policy Significance

At the policy level, the study is contemporary. Ghana's health system is transforming in areas like digital health infrastructure and telecommunications regulation, which involve emergency lines (Ministry of Health, 2021). The abuse of emergency lines is poorly addressed in existing policies. This paper offers empirical evidence that can assist in the formulation of more robust legal provisions against prank calling, investment in call-tracing technology, and targeted awareness campaigns that must walk a fine line between deterrence and education. In particular, policymakers will understand why punitive measures alone may fail and how policy should include behavior change communication approaches in order to encourage effective use of the ambulance system. Evidence-based recommendations from this study can consequently enhance Ghana's emergency preparedness and health communication plan (Mould-Millman et al., 2015).

Societal Significance

At the social level, the research has life-saving implications. Insofar as prank calls cause ambulances to be dispatched to non-existent locations, real patients, such as those suffering from cardiac arrest, maternal complications, or road traffic accidents, experience delayed or absent treatment, which can be lethal (World Health Organization, 2017). In making individuals aware the risks involved in such practices, the research enables individuals to understand that prank calling is not a harmless behavior but a lethal practice that causes harm to community well-being. Additionally, the study calls for collective responsibility by illustrating how prank calls erode public confidence in NAS and discourage genuine callers from seeking help. By altering public

attitudes, it helps strengthen the social contract between citizens and the state (NAS), thereby improving mutual accountability and trust.

1.6 ORGANIZATION OF THE STUDY

This study is divided into five chapters, progressing systematically to address the research problem, objectives, and questions.

Chapter One: Introduction

This chapter provides background information for the research, states the problem, research objectives, and questions, and defines the scope and significance of the study. It situates prank calls within the context of Ghana's emergency medical services (EMS) and highlights the most important issues under investigation.

Chapter Two: Literature Review

The second chapter offers a critical evaluation of existing research on emergency medical services, hoax calls, health communication, and relevant behavioral theories. It integrates both international and local perspectives, identifies major theoretical models such as Diffusion of Innovations and Relationship Management Theory, and points out conceptual flaws that justify the current study.

Chapter Three: Research Methodology

This chapter describes the research design and strategy used in the study. It explains the qualitative approach, sampling methods, data collection tools (interviews, focus group discussions), and data analysis procedures. It also addresses issues related to trustworthiness, ethics, and limitations to strengthen the methodological framework.

Chapter Four: Findings and Discussion

This chapter presents the study's empirical results. Data gathered from EMTs, dispatchers, and the public are analyzed thematically to identify patterns related to prank call behaviors, causes, and

effects. The results are interpreted in relation to previous literature and theoretical models, highlighting areas of agreement, disagreement, and new insights.

Chapter Five: Summary, Conclusions, and Recommendations

The final chapter summarizes key findings, provides conclusions related to the research questions, and offers actionable recommendations. These are aimed at the National Ambulance Service (NAS), policymakers, and community stakeholders to help reduce prank calls and improve public trust in EMS. It also suggests directions for future research.

1.7 CHAPTER SUMMARY

The chapter has set the stage for the research by situating the problem of prank calls within the broader context of emergency medical services (EMS) in Ghana. It began with the background to the study, where it identified the critical role played by EMS in saving lives and also the challenges faced by the National Ambulance Service (NAS) in its mandate. In this context, the issue of prank calls was seen as a specific and persistent problem that undermines the provision of services, squanders resources, drains public trust, and threatens patient outcomes. The problem statement was presented to justify the need for this research, citing salient lacunae in the literature. These are the empirical gap, the lack of comprehensive studies on prank calls in the Ghanaian EMS context; the theoretical gap, the lack of communication and behavior theory in explaining the phenomenon; the population gap, the omission of mixed populations like prank callers, community residents, and EMTs; and the methodological gap, the excessive reliance on quantitative or descriptive studies without rigorous qualitative exploration. These together establish the academic and operational requirements for this research.

The research question and goals were established to guide the inquiry. These are concerned with examining the character and reasons for prank calls, their operational and psychological effects on NAS, and calling for measures of mitigation. By presenting concise objectives and questions of research questions, the study presents an integrative framework for addressing the determined gaps.

The scope of the study was then defined on four dimensions: geographical, thematic, population, and time. This indicated what the research covers and does not cover. Although the study recognizes that prank calls are a problem countrywide, it concentrates on regions with high call rates, such as Greater Accra, Ashanti, and Western Regions, thereby ensuring a representative but focused method. The thematic scope was restricted to prank calls and their operational implications, whereas the population scope identified EMTs, dispatchers, community members, and institutional stakeholders as key informants. Temporal scope was set between 2020–2025, a period of heightened EMS visibility due to COVID-19, and thus the research was timely and relevant.

The research meaning was examined on several dimensions. Scholarly, it formulates theory through applying the Diffusion of Innovations (Rogers, 2003) and Relationship Management Theory (Ledingham, 2003) to EMS use, considering prank calling as a matter of adoption and trust. Pragmatically, it presents NAS recommendations in training, public education, and communication strategies. Politically, it offers evidence towards reforming telecommunications regulation, public sensitization, and call-tracing systems. Socially, it fosters awareness of the life-threatening effects of prank calls, thus promoting proper use of EMS services. It also provides a basis for future comparative research in sub-Saharan Africa.

Finally, the study arrangement was clarified, outlining the logical sequence of the thesis. The work is structured in terms of five chapters, beginning with an introduction, then a literature review, a research approach, a presentation and discussion of results, and a concluding chapter summarizing contributions and providing recommendations. This streamlined progression ensures coherence and transparency in the study.

Lastly, Chapter One frames prank calls not only as practical jokes but as a source of significant hindrance to effective emergency response. It places the research as an intervention of scholarly worth imbued with instrumental relevance, framing the remainder of the chapters to be constructed upon.

2.0 LITERATURE REVIEW

2.1 CHAPTER INTRODUCTION

Literature review is a critical component of any research, and it is the scholarly anchor that situates a study in the midst of ongoing scholarly debates. It not only maps what has been learned so far about a phenomenon but also specifies knowledge gaps, theory gaps, and practice gaps that must be filled (Hart, 2018). In this study, which examines prank calls to the National Ambulance Service (NAS) in Ghana, the literature review is particularly important because prank calls, though regularly cited in policy documents, have remained under-examined in scholarly work. An examination of prior research thus enables this research to identify what has been studied on emergency medical services (EMS) and prank calls internationally, regionally, and domestically, and to explain why a concentrated Ghanaian study is imperative and timely.

Prank calls were defined in Chapter One as an immediate NAS operational issue, with over 70% of incoming calls being false or non-emergencies (NAS Annual Report, 2023). However, the problem statement further indicated that there has been limited scholarship on this topic, typically shifting focus to broader EMS concerns such as infrastructure, financing, or delayed response times (Adeloye et al., 2018; Osei-Ampofo et al., 2018). By reviewing the literature, this chapter addresses the gaps identified earlier, evidence-based, methodological, theoretical, contextual, and population gaps, and establishes the foundation on which current research has focused to date.

To achieve this, the chapter is divided into five broad sections. It begins with a review of key concepts, identifying terms such as emergency medical services, prank calls, dispatch operations, and public trust, which are fundamental to understanding the scope of the study. It then discusses the theoretical bases, including Diffusion of Innovations Theory (Rogers, 2003), Relationship Management Theory (Ledingham, 2003), Communication Privacy Management (CPM) Theory (Petronio, 2002), Theory of Planned Behavior (Ajzen, 1991), Systems Theory (von Bertalanffy, 1968; Katz & Kahn, 1978 in organizations), and the Situational Theory of Publics (Grunig & Hunt, 1984), all of which provide frameworks for explaining prank calls both as an EMS technology adoption/misuse issue and as a matter of public trust. Next, the review references global EMS and prank call literature, drawing lessons from contexts such as North America and Europe where enforcement is strong. It then shifts focus to studies from Africa and Ghana, highlighting that EMS

research in low-resource settings has mainly concentrated on logistical issues rather than prank calls. The chapter further examines the operational and social impacts of prank calls and the intervention strategies used within different contexts. It concludes by presenting key findings and identifying gaps that justify the relevance of this study.

This research, in consuming literature, cites three principal sets of work: (1) global examinations of prank calls and EMS abuse in well-resourced systems (e.g., Lerner et al., 2020); (2) African examinations of EMS issues in low-resource contexts but excluding prank calls (Adeloye et al., 2018; Mould-Millman et al., 2015); and (3) Ghanaian research reports and policy documents citing prank calls but not exploring them systematically (NAS Annual Reports, 2021; 2023). This three-pronged approach ensures that the review not only positions prank calls in the broader EMS debates but also situates the matter against Ghana's own socio-cultural and institutional context.

In general, this introduction establishes why a review of literature is needed for the current research, connects the chapter to Chapter One's problem statement and objectives, establishes the pattern and order of the discussion, and provides the rationale for employing global, African, and Ghanaian sources. Together, these prerequisites lay the groundwork for the conceptual review and theoretical framework that follow.

2.2 REVIEW OF RELATED LITERATURE

2.2.1 THE NATIONAL AMBULANCE SERVICE (NAS) OF GHANA: CAPACITY AND UTILIZATION ACROSS TIME

The National Ambulance Service (NAS) in Ghana has undergone significant transformation since its establishment in 2004, reflecting the country's growing recognition of emergency medical services (EMS) as an essential component of public health and safety. Initially launched with a handful of ambulances and limited personnel, NAS has progressively expanded its fleet, workforce, and dispatch systems over the past two decades. Recent reports offer evidence-based observations of such expansion, both in the form of achievements and persistent shortcomings. The 2023 NAS Annual Report, for example, records the availability of 350 ambulance stations across the country, supported by 16 Regional Control Dispatch Centres and a battalion of 3,344 Emergency Medical Technicians (EMTs) (NAS, 2023). This is a mind-boggling scale-up from its modest origins in 2004, when there were less than 10 operational stations (Aikins, 2017). Scholarly

commentary and health sector reports also attest that while NAS has greatly increased geographical coverage, operational capacity has not always translated to best use. Osei-Ampofo et al. (2018) observe that the public is still faced with challenges of limited awareness, poor road infrastructure, and taxi cultural demand for perceived continuity in limiting the demand for NAS services. As well, Boateng (2021) reports that usage rates are still below projections in terms of population size, indicating inefficiencies in the gap between capacity to bridge and actual community use of the service.

This literature offers a critical framework for setting the prank call issue in context. As volumes of dispatch increase, the operational strain of false calls becomes amplified, occupying ambulances and dispatchers who might otherwise respond to true emergencies. Contrary to other settings, like South Africa, where EMS expansion has been succeeded by stiffer enforcement of abuse (Mould-Millman et al., 2015), Ghana's NAS remains disproportionately vulnerable to its disruption. That not much rigorous, repeat empirical research exists that specifies prank calls as a serious operational challenge is an omission this thesis aims to correct directly.

Thus, while existing literature primarily addresses logistics and expansion, it pays little attention to received call quality or how false demand undermines this evolving system. That is, they measure capacity, but not how prank calls infringe upon that capacity. My research builds on this discussion by showing that prank calls are a hidden yet significant drag on NAS resources. By zooming in on prank calls, I connect capacity-building initiatives to demand-side abuse, illustrating that increases in fleet size or stations are not necessarily efficient if prank calls still choke the system. Thus, the study reframes the capacity question from "how much NAS can do" to "how prank calls distort what NAS actually does."

2.2.2 PREVALENCE OF PRANK CALLS AS REPORTED BY NAS LEADERSHIP (MEDIA EVIDENCE)

The prevalence of prank calls at Ghana's National Ambulance Service (NAS) has been continually stressed by its leadership, with astonishing statistics that reveal the degree of the phenomenon. Key NAS officials like Chief Executive Prof. Ahmed Zakariah have publicly complained of misuse of the emergency line, with as much as 98% of all calls received on some days being prank or not genuine (Citi Newsroom, 2021). Similarly, MyJoyOnline (2021) quoted that approximately

80% of calls annually are prank calls or irrelevant questions not amounting to an emergency. These figures are not isolated remarks but have been continuously repeated by different media sources, suggesting a systemic and long-standing operational crisis. Although these figures are originally reported in the media rather than peer-reviewed academic journals, they are significant for a range of reasons. Firstly, they are from the leadership of NAS itself, who hold the official call logs and operational data of the service. Second, the consistency of these reports in a number of reputable sources—such as Citi Newsroom, MyJoyOnline, and GhanaWeb- gives them credibility even in the absence of officially published databases. Essentially, these comments are both insider testimony and institutional acknowledgement of prank calls as an institutional barrier to proper emergency response.

Put into a broader perspective, these Ghanaian numbers appear extremely high compared to other regions. For instance, Clawson and Dernocoeur (2006) defined prank and non-emergency calls as a "silent epidemic" of EMS worldwide, but worldwide averages are generally 10–20% of volume calls, not 70–98% as in Ghana. Such extreme deviation reflects not just the severity of Ghana's problem but also the socio-cultural and infrastructural settings that enable prank calls to be this widespread. Weak legal enforcement, inadequate call-tracing mechanisms, and low public knowledge regarding the dangers of prank calls are all contributing to this unusual Ghanaian situation (Adeloye et al., 2018).

And yet, media evidence usage also indicates a void in research and documentation. Abuse and call-handling inefficiency in most advanced EMS systems are tracked through in-depth audits, computerized call reports, and peer-reviewed studies (Lerner et al., 2020). In Ghana, though, the majority of the public evidence available to the public is through media reports, press releases, or anecdotal testimony by NAS officials. This absence of systematic academic records is symptomatic of the clear call for serious research, particularly qualitative research, in a bid to access the lived world of Emergency Medical Technicians (EMTs), dispatchers, and community individuals directly affected by prank calls.

In relation to the present research, the reported prevalence rates in the media are significant for three reasons. Firstly, they represent an entree that legitimate prank calls as a research topic. Secondly, they set the size of the problem, demonstrating that prank calls are not isolated incidents

but a systemic threat to disrupting EMS operations. Third, they offer contextual rationale for the study's direction: if prank calls make up between 80–98% of Ghanaian calls, then learning about their nature, motives, and implications is not merely an academic matter but a public safety and health policy issue.

Doing so, the study moves beyond media reports to provide a systematic, evidence-based analysis of prank calls. Doing so, it transforms anecdotal and journalistic evidence into a structured scholarly examination, and by doing so, fills an important knowledge gap within Ghana's EMS literature.

2.2.3 INTERNATIONAL EMS ABUSE AND CALL-HANDLING PROBLEMS

The problem of hoax and non-emergency calls is not Ghanaian but a universal dilemma for emergency medical systems (EMS). In several places, abuse of emergency call systems, whether in the form of prank calls, unnecessary medical calls, or intentional hoaxes, has been identified as a major obstacle to effective service provision (Clawson & Dernocoeur, 2006). While the extent varies by country, the common thread is that abuse undermines the efficiency of dispatch centers, wastes limited resources, and ultimately puts the public at risk. In more established EMS systems, such as in the United States, Canada, and the United Kingdom, research has estimated that 10% to 20% of requests for emergency services may be inappropriate or non-emergency (Hjalte et al., 2007; Lerner et al., 2020). These include patients calling ambulances for minor medical issues, non-emergency transport requests, or social problems such as loneliness. In Sweden, Hjalte et al. (2007) reported that nearly 15% of EMS calls were "non-essential", consuming significant resources that would otherwise have been reserved for life-threatening emergencies. In the UK, Edwards et al. (2019) found that "frequent callers" and misuse cases constituted a considerable strain on ambulance services, with calls for triage-based call screening.

In developing contexts, however, the prevalence and consequences of prank and misuse calls are even more severe. For example, Singh et al. (2016) in India noted that prank calls were one of the foremost operational burdens on the country's national emergency medical helpline, and hoax and prank calls took up as much as 30–40% of dispatch center capacity. In Nigeria, Adeyemo and Oladipo (2018) reported that prank calls were "endemic" in the Lagos State Ambulance Service and were resulting in serious delays in ambulance dispatch for genuine emergencies. These

findings resonate with the Ghanaian context, where prank calls have been reported to constitute as much as 80–98% of all calls (Citi Newsroom, 2021; MyJoyOnline, 2021).

Globally, prank calls present three intertwined operational challenges to EMS systems. In the first place, they increase response times for genuine emergencies. When dispatchers must sort through high volumes of hoax calls, response time to emergent cases like cardiac arrest, trauma, or obstetric emergencies is drastically prolonged (Lerner et al., 2020). Prank calls waste scarce resources secondly. EMS systems operate on finite budgets, and responding to a false call does not just waste fuel and manpower but also removes a life-saving unit from availability for true emergencies (Clawson & Dernocoeur, 2006). Thirdly, prank calls shatter EMS providers' faith in the public. Where residents face delays or no answer from ambulance services, often because the system is overwhelmed by hoax calls, they lose faith and turn to dangerous alternatives such as taxis or private cars for emergency transport (Hodkinson et al., 2016).

Comparative studies show contrasting countermeasures in other regions. In the United States, for instance, sophisticated call prioritization algorithms and decision-support systems allow dispatchers to filter calls and identify likely hoaxes (Lerner et al., 2020). In the United Kingdom, "frequent caller" programs target those who misuse ambulance services, combining sanctions with social care responses in a bid to reduce inappropriate calls (Edwards et al., 2019). In India, authorities have introduced SIM card blocking mechanisms, whereby numbers identified as repeat prank callers are blacklisted (Singh et al., 2016). In Nigeria, proposals have been made to integrate caller ID tracking systems and to introduce stronger legal penalties for prank callers (Adeyemo & Oladipo, 2018).

The comparison provides a critical observation for Ghana: while prank calls are a globally recognized phenomenon, their occurrence in Ghana is disproportionately higher than international norms. While 10–20% inappropriate calls are experienced by developed EMS systems, the 80–98% incidence in Ghana points to a crisis that is systemic rather than incidental. This means that prank calls in Ghana are not only an operational nuisance but a structural barrier to EMS effectiveness. Weak legal deterrence, lack of advanced caller identification technology, low levels of public education, and limited integration with law enforcement are all circumstances that guarantee the persistence of the issue.

From an academic perspective, global literature also highlights a major research gap. Although most nations have reported misuse in terms of quantity, fewer nations have examined why people participate in prank calling activity. For example, cultural attitudes towards ambulances, youth behavioral trends, or lack of confidence in government agencies could be affecting prank calling but are less examined in the literature (Adeloye et al., 2018). By situating the Ghanaian experience within this global context, the present study contributes to a more universal understanding of how prank calls are not just operational problems but also socio-cultural phenomena requiring interdisciplinary solutions.

Briefly, while prank calls and call abuse are described worldwide, Ghana's experience is exceptionally severe. The global literature provides both comparative benchmarks and candidate solutions, but also emphasizes the specific need for context-specific research in Ghana. This study, therefore, builds on global evidence but grounds its investigation in Ghanaian realities, aiming to bridge the gap between international experience and local challenge.

2.2.4 PUBLIC KNOWLEDGE, PERCEPTION, AND TRUST IN EMS

Emergency Medical Services (EMS) can be effective only if the public not only understands what they do but also has trust in them that they are dependable. In most societies, EMS is not just a technical system but a social contract between the state and citizens: people call ambulances in the expectation that their emergencies will be managed swiftly and competently (Hodkinson et al., 2016). Should this trust be lost, through delays, poor communication, or negative experiences, the public will lose confidence in EMS as a whole, seeking other, too often unsafe, options for emergency care. Across the globe, research has highlighted that public awareness of EMS is incomplete. In high-income countries such as the United States, Canada, and the UK, public education campaigns and an EMS infrastructure that is well established over decades have created comparatively high public trust levels despite issues such as response times (Knowles et al., 2018). In the UK, for example, the public strongly associates the "999" number with emergency services, which demonstrates how brand recognition of EMS numbers facilitates quick and confident usage. Yet even in these environments, opinion is not uniform: marginalized communities often report

distrust of state apparatus, particularly where racial or socioeconomic differences affect access to healthcare (Hodkinson et al., 2016).

In low- and middle-income countries (LMICs), public views of EMS are more mixed. Awareness of ambulance numbers and services is less, and misinformation or misconceptions about ambulance functions are common (Al-Shaqsi, 2010). In Nigeria, Adeyemo and Oladipo (2018) noted that a number of citizens did not know ambulances were subsidized or free and were therefore not willing to call them. In India, Singh et al. (2016) noted that a section of the public had perceptions that ambulances were slow, costly, or only for "VIPs," and this strongly discouraged their use.

In Ghana, limited research shows similar trends. Studies and media reports have shown that despite the NAS's inception in 2004, public awareness of the ambulance system and its toll-free number (112) is limited (Adongo et al., 2014; Citi Newsroom, 2021). The majority of citizens are not sure whether NAS ambulances will arrive quickly, whether services are actually free, or whether staff are adequately trained. Hodkinson et al. (2016), studying EMS in Africa, emphasized that adverse perceptions, often founded on a single or two negative personal experiences, rapidly circulated in communities, causing long-term reputational damage. This is particularly critical in Ghana, where responses delayed by prank calls or a few available resources might reinforce public narratives that NAS is untrustworthy.

The relationship between prank calls and public opinion is particularly important. Prank calls waste NAS resources and reinforce public distrust by making genuine callers wait longer or get no answer. When the public perceives ambulances are not coming, they may discourage others from calling EMS, thus creating a cycle of disengagement (Adeloye et al., 2018). Furthermore, prank calling itself is a symptom of low public trust: if residents do not view the ambulance service as legitimate, they will likely scorn the system or even make fun of it. Prank calls, then, both stem from and sustain poor trust in EMS.

Scholars also highlight the importance of public education and communication in shaping perceptions. Knowles et al. (2018) argued that EMS cannot succeed without deliberate efforts at awareness creation through public campaigns, school education, and media engagement. In South

Africa, Hodkinson et al. (2016) described successful interventions where EMS worked with community leaders in turning ambulances from "vehicles of death" (where they were only spotted when transporting corpses) to "vehicles of life." These attempts demonstrate that community engagement can reverse misconceptions and strengthen confidence.

Another factor is equity in service delivery. Where citizens perceive ambulances only respond quickly in urban centers or for the more privileged strata, trust in EMS is undermined among marginalized populations. In Ghana, for instance, there are suggestions that rural residents feel marginalized with the perception that ambulances only prioritize urban emergencies (Adongo et al., 2014). Not only does such perception discourage use, but it also contributes to resentment and apathy, such that prank calls are more likely in less invested communities.

Globally, new strategies have been introduced to re-establish public trust in EMS. In the United Kingdom, public sensitization campaigns emphasize that "every call matters," while in the United States, response time data transparency has been leveraged to guarantee public accountability (Knowles et al., 2018). In Kenya and Nigeria, collaborations between EMS agencies and local media houses have been tried out to reduce misconceptions and earn trust (Adeyemo & Oladipo, 2018). These strategies highlight a key lesson: building trust requires both improvement in services (reliability, timeliness, and equity) and communication strategies (PR and education).

For Ghana, the data indicate that the recovery of public trust in NAS requires a twin-track approach: first, improving operational routine to get ambulances to arrive as and when they should; and second, addressing reputational erosion from prank calls and rumors through sustained community outreach. Because this study examines prank calls, it situates them not simply as a type of disruptive behavior but within a broader landscape of perception, trust, and communication. Understanding how prank calls intersect with public awareness and trust will be crucial to devising long-term solutions.

Lastly, while EMS abuse has operational implications, its most significant impact is perhaps in how it rearranges public perception and trust of ambulance services. Literature across both high-income and low-income contexts emphasizes that EMS is not just an issue of dispatch systems and cars but of social legitimacy for emergency care. This insight confirms the necessity of treating

prank calls in Ghana not just as a technical challenge but as an existential communicative and relational problem.

2.2.5 DISPATCHER AND EMT EXPERIENCE UNDER OPERATIONAL STRAIN

Emergency Medical Dispatchers (EMDs) and Emergency Medical Technicians (EMTs) form the frontline of Emergency Medical Services (EMS), serving as the crucial link between distressed citizens and life-saving interventions. International studies emphasize the high-stakes, high-stress nature of their roles. Dispatchers handle calls that range from cardiac arrests and trauma to mental health crises, all requiring quick and accurate decision-making (Patterson et al., 2010). They also need to reassure panicked callers, prioritize cases, and deploy the right resources within seconds (Shakespeare-Finch et al., 2015). EMTs work in demanding settings such as traffic accidents, home emergencies, and disaster scenes, often under time pressure and with limited resources, and with few safety assurances (Regehr & LeBlanc, 2017). The psychological impact of this work is well-documented. Research shows dispatchers and EMTs face high levels of burnout, post-traumatic stress symptoms, and compassion fatigue compared to most other health care providers (Halpern et al., 2012). Repeated exposure to traumatic situations, especially when resources are scarce, can decrease job satisfaction, cause absenteeism, and lead to staff turnover (Patterson et al., 2010; Regehr & LeBlanc, 2017). For example, Canadian research by Shakespeare-Finch et al. (2015) found that dispatchers often feel frustrated with "false urgency" calls that waste their time, while EMTs experience emotional exhaustion after calls that do not involve significant clinical intervention.

In the African context, studies have highlighted structural tensions, including a constant shortage of ambulances, insufficient equipment, and a lack of institutional backing (Osei-Ampofo et al., 2018; Mould-Millman et al., 2015). No exception is Ghana: EMTs often have to work long days, suffer animosity from the public when they arrive late, and face logistic difficulties such as poor road conditions or petrol shortages (Boateng, 2021). Ghana's NAS center dispatchers are burdened with high call levels, frequently lacking digital infrastructure to verify calls or track locations. Such conditions constitute an already strained working environment where more stressors, prank calls included, tend to cause greater harm.

What is particularly deleterious about prank calls is their compounding effect on operational stress. Each false call triggers the same exhaustive process as an actual emergency: dispatchers expend mental and emotional energy in assessing the situation, EMTs rush to reach the location as soon as possible, and scarce ambulances are dispatched (NAS Annual Report, 2021). When such calls are false, several effects follow:

1. **Frustration and Disillusionment** – Dispatchers are frustrated that their professional time is being squandered, leading to lower morale. Over time, they become cynical or even less reactive, questioning the validity of subsequent calls.
2. **Occupational Risk with No Reward** – Paramedics dispatched at high velocity put their lives in danger on treacherous roads, only to learn that the "emergency" was fabricated. This creates resentment and feelings of uselessness.
3. **Moral Injury** – Realizing that even though they responded to a joke, somewhere else a real patient might have died waiting for help heightens psychological suffering and guilt (Halpern et al., 2012).
4. **Burnout and Attrition** – Cumulative impact of prank calls contributes to enhanced burnout, absenteeism, and workforce turnover that undermines NAS's ability to retain skilled EMTs.

Despite these real effects, prank calls are not frequently investigated as a work-related occupational health issue in EMS literature. Instead, they are treated as annoyance data, percentages of wasted calls, without linking them to the daily life of the most affected professionals (Clawson & Dernocoeur, 2006). This lack of literature risks overlooking how prank calls reduce not just operational performance but also workforce well-being, which is equally essential in sustaining a resilient EMS system.

Even though existing scholarship has noted that dispatchers and EMTs operate under intense amounts of stress, there is an overrepresentation of studies that point to trauma exposure due to actual emergencies or organizational deficits. Comparatively few of them are pointing to prank calls as a distinct cause of operational and psychological stress, particularly in Ghana, where prank calls make up more than 70–80% of all calls received (NAS Annual Report, 2021; Citi Newsroom, 2020).

This study clearly fills this blind spot by placing dispatcher and EMT narratives of prank calls in the forefront. Using qualitative interviews and thematic analysis, it brings to life how prank calls shape their morale, effectiveness, and experience of public trust. It moves prank calls from being merely an "operational barrier" to also being a human resource and occupational health issue. Doing this, the study provides NAS leadership evidence on how prank calls:

- Demoralize front-line personnel.
- Increase employee turnover risks.
- Create subconscious hesitance in return calls.
- Increase the already unstable mental health condition of EMS workers in Ghana.

Through documenting these experiences, the study contributes to academic literature on occupational health among EMS and practical strategies for improving dispatcher and EMT resilience. These interventions include stress management workshops, targeted counseling, and policy reforms to reduce levels of prank calls.

2.2.6 LEGAL AND REGULATORY ENVIRONMENTS FOR EMS MISUSE

Global Context: Prank Calling as a Legal Crime

Emergency communication systems, be it 911 in the United States, 112 in the European Union, or 999 in the United Kingdom, are considered to be critical public safety assets. Abusive utilization of such systems via prank calling or hoaxes has long been seen not as wasteful frivolity but as an offense against public safety. For instance,

in the United States, 911 prank calls are misdemeanors or felonies, depending on the circumstances. When the prank call leads to diversion of resources that ends in injury or death, it leads to felony charges and imprisonment (Clawson & Dernocoeur, 2006).

In the UK, Section 127 of the Communications Act 2003 also criminalizes hoax calls with imprisonment for a maximum of six months and a fine (Ofcom, 2019). Under the Malicious Communications Act 1988, as well, harassment, fax or phone messages that cause distress can also be prosecuted.

In Australia, Section 474.18 of the Criminal Code Act 1995 expressly criminalizes false emergency calls with a maximum fine of AUD 12,600 or imprisonment.

In India, prank calls to 108 ambulance services are criminalized under the Indian Penal Code (IPC), with states having deployed awareness drives in parallel with legal sanctions (Singh et al., 2020).

These models reflect a global consensus: hoaxes via false emergency calls are risky practices that consume scarce resources and endanger genuine patients.

African Context: Regulatory Loopholes and Enforcement Weaknesses

The situation in Africa is more complex. South Africa has made provision in the Electronic Communications Act, 2005, criminalizing the misuse of emergency lines. Empirical research has revealed, however, that ineffective enforcement and limited technological capacity dampen the deterrent effect of such legislation (Mould-Millman et al., 2015).

Prank calls on the 112 emergency line are prevalent in Nigeria, with some states having adopted bylaws criminalizing prank callers. But enforcement is spasmodic because coordination between telecom providers and the emergency service providers has been compromised, hence making it difficult to trace the offenders (Adedokun et al., 2019).

These African experiences shed light on one key issue: even when there are laws on the books, they can remain unenforced due to system-level issues, thin digital tracing, corruption, and the low priority of prank calls compared to "serious crimes."

Ghana's Regulatory Landscape

In Ghana, prank calls to the National Ambulance Service (NAS) are recognized as a serious concern but without a distinct, sector-specific legal framework criminalizes they are explicitly. Instead, prank calls are governed under:

1. Criminal Offenses Act, 1960 (Act 29): General provisions against "false communication" or behaviour injurious to public safety may, in theory, be applied to prank calls.
2. Electronic Communications Act, 2008 (Act 775): Stops abuse of telecommunication services, e.g., intentionally sending false information.
3. SIM Card Registration Regulations (2021): Seeks to reduce anonymity in the use of phones, potentially making it simpler to locate prank callers.

However, despite these provisions, prank calls remain prevalent. As an estimate made by NAS leadership, between 80–98% of a typical day's calls are false alarms (Citi Newsroom, 2020; MyJoyOnline, 2021). That prank calls remain prevalent indicates that the legal means at hand are lacking, weakly enforced, or not targeted to the EMS environment.

Most Significant Enforcement Challenges in Ghana

1. Caller Anonymity: Despite SIM registration, loopholes like multiple ownership, fake registrations, and unregistered SIM use weaken traceability (NCA, 2022).
2. Low Prosecution Rates: Prank call cases rarely reach court. Offenders are often children or youths, and law enforcers avoid prosecution, fearing the crime will be seen as "minor" (Agyekum, 2020).
3. Institutional Gaps: NAS is not under any immediate legal obligation to prosecute prank callers, and they have to rely on the police or the National Communications Authority (NCA). This slows down response and reduces accountability.
4. Public Awareness Deficit: Practically all Ghanaians are unaware that prank calling is an offence, and they carry the mentality that it is harmless mischief and not a life-threatening offence (Citi Newsroom, 2020).

Scholarly research on the EMS system of Ghana has addressed capacity, access, and utilization issues (Osei-Ampofo et al., 2018; Osei-Ampofo et al., 2020), while work on legal frameworks governing EMS abuse has been scarce. What exists is in policy statements or press comments by

NAS officials denouncing prank calling. There is no comprehensive scholarly analysis of how prank calls intersect with Ghana's legal, regulatory, and enforcement apparatus. This gap discounts policymakers' ability to develop customized reforms.

This study contributes in the following respects:

1. Linking operational realities to law deficiency: Where prank calls have been traditionally studied as operational nuisances, this study clearly demonstrates how weak legal-regulatory mechanisms perpetuate the problem.
2. Providing qualitative evidence: By speaking with EMTs, dispatchers, and neighborhood residents, the study will demonstrate how prank calls persist because perpetrators feel that there are no consequences.
3. Shaping policy change: The findings will be positioned to recommend sector-specific legislation for EMS, stronger collaboration with telecom regulators, and call-tracing technology integration to improve enforcement.
4. Focusing on deterrence through education: In addition to sanctions, this study will focus on public education campaigns that portray prank calling as risky activities, not fun games.

This research reframes prank calls as not only a behavioral problem but also a regulatory lacuna in Ghana's emergency medical system. Through the syntheses of frontline providers and policy-level findings, the study offers evidence-based justification for:

- The formulation of new legal provisions that target EMS abuse specifically.
- Stricter telecom-Emergency Service collaborations to identify callers.
- Formulation of awareness campaigns and enforcement measures.

By doing so, the study moves beyond documenting the phenomenon of prank calls to inquiring about why they persist, and what institutional changes need to happen in order to end them.

2.2.7 EMS CREDIBILITY AND TRUST PERCEPTIONS OF THE PUBLIC

Trust as the Foundation for EMS Participation Globally

Across emergency care systems around the world, public trust is the basis for utilization. People will only call for an ambulance if they feel that the service is safe, responsive, and legitimate. Where EMS credibility is strong, utilization rates are high and prank calls are relatively low, as individuals view the service as a lifeline rather than a target for entertainment (WHO, 2017; Lerner et al., 2020).

1. In the **United States**, the confidence of the public in EMS is high because of advanced logistics, quick response, and perceptible oversight tools (Sasson et al., 2015).
2. **Western European** countries have highly technological and heavily subsidized ambulance services along with strict penalties for misuse, which ensures confidence and discourages false alarms (Van de Voorde et al., 2019).
3. In **Pakistan and India**, however, use is suppressed by suspicion. Ambulances are too often viewed as "too late" or "too costly," leading families to turn to taxis or private vehicles even in life-or-death emergencies (Singh et al., 2020).

These trends speak to a truth that ignores geography: trust cannot be assumed, but rather must be earned through repeated performance, communication, and accountability.

African Realities: Fragile Trust in EMS

In Africa as a whole, EMS is still new, underfinanced, and insufficiently researched. This ultimately results in a poor trust relationship between the population and service providers (Mould-Millman et al., 2015).

1. In South Africa, research suggests that disadvantaged communities tend to distrust EMS, expecting ambulances to be late or prioritizing affluent regions (MacFarlane et al., 2019).
2. In Nigeria, studies reveal that citizens shun EMS altogether, preferring to use taxis because the perception is that ambulances are slow, unsuitable, or unavailable in rural areas (Adedokun et al., 2019).

3. In Kenya and Uganda, the credibility of EMS is so low that ambulances are sometimes viewed as "transport for the dead" rather than emergency life-saving vehicles, discouraging people from availing the service (Kobusingye et al., 2017).

Across the continent, mistrust is both cause and effect of low EMS utilization. When people don't trust the system, they avoid it; when utilization is low, services remain underfunded, and this further undermines trust.

Ghana's EMS Credibility Crisis: The NAS Experience

In Ghana, the National Ambulance Service (NAS) has come to prominence ever more as a central health institution, especially after its heightened visibility during the COVID-19 pandemic (NAS Annual Report, 2021). Public confidence in NAS is nevertheless fragile and one-sided.

Some issues weakening confidence include:

1. Perceptions of Delay: Communities have grumbled that ambulances "come too late," and families therefore use taxis or motorbikes instead of waiting (Osei-Ampofo et al., 2018).
2. Rumors and Misinformation: Some citizens believe ambulances have hidden fees, belong exclusively to political elites, or cannot deliver high-level care (Boateng, 2021).
3. Operational Distortions as a Result of Prank Calls: Above all else, prank calls, ranging from 70% to 98% of calls depending on the day (Citi Newsroom, 2020; MyJoyOnline, 2021), overload dispatchers. This results in wasted resources and delayed response for legitimate patients. Citizens, hence blame NAS for inefficiency, but prank calls are the quiet saboteur.

In such a manner, prank calls are not just an operational issue; they are a threat to the legitimacy and reputation of NAS.

Theoretical Insights: Why Trust Matters

A few theories explain how trust and prank calls, and EMS use relate to each other:

1. Relationship Management Theory (Ledingham, 2003): Public-organization relationships are founded on trust, satisfaction, and shared commitment over the long term. Each prank call undermines the relational bond by wasting EMT time and bruising citizens' faith in the service.
2. Diffusion of Innovations (Rogers, 2003): Adoption of EMS in Ghana is dependent on the relative advantage, compatibility, and dependability beliefs of the public. The public may infer that EMS is ineffective if prank calls make ambulances late, resulting in slower adoption.
3. Attribution Theory (Weiner, 1985): Late ambulances lead citizens to attribute the reason directly to NAS rather than the hidden factor of prank calls. Misattribution dissuades further participation by decreasing confidence.

Collectively, these theories highlight that impressions are just as important as empirically measurable performance in shaping EMS believability.

Modern Ghanaian EMS research (e.g., Osei-Ampofo et al., 2018; Mould-Millman et al., 2015) is primarily focused on logistical, infrastructural, and financial topics. Comparatively few studies directly talk about prank calls as a cause of public distrust. Prank calls are in general discussed as a nuisance and not as an agent of reputational loss. That means there is a major conceptual and empirical deficit: equating prank calls to a socio-psychological process draining trust and decreasing legitimate usage.

1. Documenting Public Narratives: It collects qualitative data from dispatchers, EMTs, and community members to observe how prank calls are perceived and how they destroy credibility.
2. Connecting Prank Calls with Trust Dynamics: It frames prank calls as not just operational disruptions but also reputation threats that erode relational trust between NAS and its publics.
3. Offering Strategies to Rebuild Trust: Merging theoretical understanding with everyday experience, the study will suggest mechanisms for restoring trust in the form of open disclosures of the impact of prank calls, public outreach programs, and propaganda operations to alter popular opinion.

The uniqueness of this research lies in its reinterpretation of prank calls as a matter of trust crisis, rather than a matter of efficiency. Through its demonstration of how false alarms undermine credibility, impede adoption, and deteriorate public trust, the research offers a novel point of view through which policymakers, practitioners, and researchers can understand EMS abuse in Ghana.

It does so by both developing theory (through the incorporation of relational and attribution paradigms) and practice (by providing context-dependent guidelines for the re-establishment of public trust).

2.2.8: SOCIO-CULTURAL DETERMINANTS OF PRANK CALLS IN GHANA

Prank calls to Ghana's emergency services, particularly the National Ambulance Service (NAS), are not random or merely a matter of individual behavior; rather, they are ruled by socio-cultural environments, earlier attitudes towards state services, and community-level behavior. It is important to know these determinants because it positions prank calls in Ghana's overall communication culture, where humor, distrust, and socio-economic realities meet.

1. Playfulness, Humor, and "Testing the System"

In Ghanaian culture, language tends to express playfulness, exaggeration, and humor. For most of the young people, prank calling is perceived as an innocent game or a way of "testing out" the line without malice. In recorded interviews with Ghanaian media, some young people admitted that they called NAS "to check if the line is working" (Citinewsroom, 2021). This aligns with studies of prank activity that show that peer disapproval, thrill-seeking, and boredom are primary motivators (Ojedokun & Idemudia, 2014). There is also a local proverb: "If the drum is beaten too frequently, it loses its sacredness." In the context of this application, repetition of the NAS line desanctifies its sanctity. The mere act of "testing" the system is one of an impaired sense of gravitas in emergencies, making the operation of ambulances a game.

2. Disillusionment with State Institutions

The second forceful socio-cultural driver is state-provided service public distrust. Ghana's history of bureaucratic inefficiencies and experience with visible gaps in health and emergency service delivery has built a culture of mistrust. Low public trust in government systems has been shown by researchers to have negative effects on the consumption of services (Asamoah, 2020). Slow response rates or lack of visibility in some rural regions, for instance, are determinants that result in NAS perceived unreliability. Therefore, prank calls sometimes operate as a social commentary or act of defiance. When individuals believe that "ambulances don't come anyway," they perceive it as justified to mock the system via phony calls. This combines sabotage with a subtle political critique of state responsibility, putting prank calls both as a form of defiance and a symbol of distrust.

3. Socio-Economic Marginalization and Spare Time

In poor urban neighborhoods such as Nima, Chorkor, or Ashaiman, socio-economic difficulties, youth unemployment, and the absence of organized forms of leisure life create an environment in which prank calling becomes a form of entertainment. Scholars examining youth behaviors in poor environments note that "idle time" is typically to blame for risk-taking and socially disorganizing communication behaviors (Ankomah, 2019). The ease of access to cheap prepaid SIM cards and historical laxity in enforcing SIM registration provide anonymity, making detection less feared. Prank calling thrives at the intersection of technology (availability of phones) and economic distress (few opportunities).

4. Cultural Attitudes Toward Health and Emergency Response

Cultural notions of emergency and illness also affect the seriousness EMS is taken. Sudden illness or death in certain parts of Ghana can be attributed to supernatural causes rather than to medical emergencies (Aikins, 2015). Prank calls can be reduced if biomedical interventions such as NAS are viewed to be secondary to traditional healing or to God's intervention. For example, in some groups, families first approach spiritual authorities to obtain advice before summoning an ambulance, which indicates that EMS is not always regarded as the "first line of defense." Lower prioritization can indirectly normalize prank calling because NAS is not accorded the same respect that conventional or family-based models of crisis intervention enjoy.

5. Social Identity and Peer Influence

Peer pressure is responsible for keeping prank calls going, especially among adolescents. Research on communication abuse in African cultures has shown that collective identity encourages deviant or risky behavior if it brings one laughter, attention, or prestige in a peer group (Nyarko, 2018). Prank calls might be the initiation rite into group membership for teenagers in general—"the one who can trick the dispatcher is revered." Peer validation normalizes abuse and passes the problem on from one generation to another.

The present study engages with such socio-cultural factors by exploring prank calls not in technical or operating terms, but rather in other contexts. It wants to know why people engage in NAS prank calls, putting the behavior into cultural norms, youth identity formation, anti-authoritarianism, and socio-economic realities. By gaining information from EMTs, dispatchers, and community members, the study will:

- Reveal cultural attitudes towards NAS and why prank calls are not taken seriously.
- Document how socio-economic circumstances (unemployment, leisure time, ready availability of cheap phones) drive prank activity.
- Portray peer and intergenerational relationships, illustrating how prank calling goes around in communities.
- Extricate distrust of state services and relate prank calls to wider concerns with government and public accountability.

Lastly, this cultural framing allows the research to provide context-sensitive solutions, like using culturally recognizable proverbs and stories in public campaigns, establishing trust through participatory community engagement, and addressing the social roots of prank calls rather than reprimanding the callers only.

2.2.9 TIMELESS EVIDENCE ON RESPONSE TIMES AND OUTCOMES

One of the most enduring conclusions in EMS research is the overriding significance of response time on patient survival. Pioneering studies in North America and Europe during the 1970s and 1980s demonstrated that survival for cardiac arrest and other time-sensitive emergencies decreases sharply when ambulance response times exceed five minutes (Bayes de Luna et al., 1989; Eisenberg et al., 1990). These investigations formulated the principle of the so-called "golden minutes," stressing that the difference between life and death in many cases depends on quick EMS response. This evidence has been reinforced and clarified over the years. Blackwell and Kaufman (2002) confirmed that shorter response times are positively correlated with survival in urban cardiac arrest, and Pons et al. (2005) stated that although "seconds do not always save lives," chronic delays of over 8 minutes reduce survival prospects for critical trauma patients. Cumulatively, this body of work formed the foundation of EMS policy and practice around the world, seeding the idea that dispatch efficiency is a clinical determinant rather than merely an administrative or logistic consideration.

In Ghana, where hospital arrival times are often prolonged due to traffic congestion, infrastructure problems, and limited ambulance fleet capacity, the benefit of early ambulance arrival is potentially even greater (Osei-Ampofo et al., 2018). But NAS's ability to perform to these response standards is already precarious under normal operating conditions. Prank calls exacerbate this weakness by occupying ambulances on fictitious emergencies, tying up dispatch lines, and sapping EMT energy and morale. Prank calls, then, are not only a drain on public resources; they also positively threaten time-sensitive patient outcomes by undermining response reliability.

Policy-wise, the foundational evidence on response times provides the benchmark against which Ghana's EMS troubles can be measured. Suppose prank calls are a source of delay in dispatch or inappropriate deployment of vehicles. In that case, they must be recognized as a threat to public health with clinical repercussions, and not simply as cases of public mischief. This changes the priority of responding to prank calls from one of operational nuisance to one of life and death.

This study draws on classic EMS response time data to support its argument that prank calls are not mere minor distractions but possible dangers to survival. By means of qualitative research with

EMTs, dispatchers, and citizens, the study interprets classic time–outcome relationships evidence to Ghanaian modern EMS challenges in the following manner:

1. Synchronizing prank calls with survival threats by established methods.

World EMS literature consistently demonstrates that response times outside the critical five–to–eight–minute period reduce opportunities for survival in emergencies such as cardiac arrest, major trauma, and maternal emergencies (Blackwell & Kaufman, 2002; Pons et al., 2005). With NAS in Ghana, where it already faces infrastructural and logistical hurdles, prank calls introduce additional and unnecessary delays. Positioning prank calls within this widely researched time–outcome model redirects them as a public health hazard rather than merely as public annoyance. This association underscores that every prank call risks a preventable death from undermining dispatch credibility.

2. Documenting first-hand experiences of hoax call delays.

Whereas survival rates draw attention to the critical importance of prompt EMS, they minimize the human cost of delay. With qualitative data and interviews, this study holds the lived experiences of dispatchers and EMTs, such as being dispatched to nonexistent emergencies, then learning that real patients died waiting for assistance. These are the kinds of anecdotes that are the building blocks of evidence linking prank calls with opportunities lost in saving lives, demoralizing personnel, and eroding public trust. These anecdotes place the problem in focus in a way that statistics cannot.

3. Positioning Ghana's unique vulnerabilities within the global context of international best practices.

In comparison to EMS systems operating in high-income countries, NAS in Ghana operates on a narrow fleet, low call-tracing capacity, and weak enforcement of communications rules (Adeloye et al., 2018). Traffic congestion and poor road infrastructure also hinder ambulance movements even in non-emergency conditions. Through the positioning of Ghana's realities on a global survival level, the study shows that prank calls worsen existing vulnerabilities, such that patients

are twice as vulnerable. Through this, contextualization reinforces the vulnerability of EMS within low-resource environments and the need for intensity-level interventions addressing structural and behavioral limitations.

4. Enhancing policy recommendations to serve as life-saving imperatives.

By merging survival statistics with onsite experience, the study positions prank call reduction not merely as an operational change but as a life-saving policy initiative. Proposals of more stringent call verification mechanisms, intensified public education, and legal disincentives are positioned as action that directly impacts mortality and morbidity outputs. This setting also supports the call for an investment in social and technological interventions at once to curb prank calls in a bid to harness limited EMS resources for genuine emergencies. In summary, by unifying Ghanaian realities with the bedrock evidence on EMS response times, the study establishes that prank calls compromise the time-sensitive mandate of emergency medical services directly. Beyond diverting resources, they compromise the very essence of pre-hospital care: to be able to save lives where seconds are precious. This requires multi-level interventions that conjoin theory, policy, and community action to safeguard the credibility and clinical effectiveness of NAS.

2.2.10 CALL-TAKING AS A TYPE OF INTERACTION: CONVERSATION-ANALYTIC INSIGHTS

In the study of emergency medical services (EMS), the process of call-taking has increasingly been considered an interactional process and not merely an information transfer. Conversation analysis (CA), an offshoot of communication studies and sociolinguistics, has indicated that the manner in which an emergency call is initiated, progresses, and ends directly influences the accuracy of information gathered, the priority given, and ultimately the effectiveness of the dispatch decision (Whalen & Zimmerman, 1990; Drew & Walker, 2010). Far from neutral, the "talk" between caller and call-taker is structured, patterned, and consequential. Existing studies have shown that initial seconds of an EMS call are crucial: the manner in which the caller frames the case (e.g., "someone is dying" vs. "my friend is unwell") and the manner in which the dispatcher responds (with closed vs. open questions, direct vs. delayed assessment) influence the

course of information and the legitimacy of the case (attributed by the dispatcher) (Stokoe, 2014). When inconsistent, exaggerated, or deliberately false reports are provided by callers, dispatchers are left with the unfortunate situation of having to weigh suspicion against professional duty not to disregard a genuine emergency. This is especially problematic where the risk of prank calls is high, as is the case in Ghana's NAS, where between 70–90% of calls have been reported as non-legitimate (NAS Annual Report, 2023; Citinewsroom, 2021).

Conversation analysis also shows that call-takers co-actively co-construct the emergency narrative with the caller. Through questioning strategy, repetition, clarification requests, and even tone of voice, they work to elicit credible information such as location, symptoms, and signs of urgency. In the prank calls, however, lying callers will attempt to exploit scripted procedures of dispatchers using scripted responses or vaguely defined descriptions that mimic real emergencies (Edwards, 2017). Being sensitive to these fine details of speech can thus become a takeaway for dispatchers, and this can help them detect low-credibility calls more effectively without forgetting their responsibility to err on the side of caution.

For the Ghanaian context, the findings find most relevance. Dispatchers working in NAS control centers take hundreds of calls per day in a scenario of limited manpower, high pressure, and widespread hoaxes. Compared to high-income contexts in which caller ID, GPS, and digital verification technologies make screening easier, Ghanaian dispatchers have to rely primarily on the verbal exchange itself to determine whether to send out scarce ambulances. Awareness of conversation-analytic evidence thus provides a template for building dispatcher capacity. Training can highlight interactional cues to deception (e.g., hesitation, account change, reluctance to provide details), while also reinforcing empathic listening skills in an attempt not to screen out genuine callers.

This study applies these concepts in practice by focusing on dispatcher and community narratives in its qualitative methodology. By documenting how actual Ghanaian dispatchers experience and manage prank calls in real talk-in-interaction, the research foregrounds both linguistic practices of fictions callers and coping tactics of call-takers. Such findings can inform enriching context-sensitive modules of dispatcher training on the basis of not only procedure but of the social world of talk-in-interaction.

Lastly, this body of research recontextualizes prank calls not just as external "disturbances" to the system, but as interactional barriers incorporated in the very communication exchange that makes up EMS response. By marrying conversation analysis and operational stress, the study highlights that to improve EMS in Ghana is not only a case of obtaining better technology and stricter legislation, but of a more advanced understanding of how calls unfold as social interactions.

2.2.11 GHANA-SPECIFIC OPERATIONAL INDICATORS OF THE USE OF HOAX

Yet another body of evidence regarding Ghana's prank calls stems directly from operational indicators developed by the National Ambulance Service (NAS) itself. Through official releases, postings, and updates on platforms such as Facebook, the Service has publicly documented hundreds of hoax calls received in compressed time periods, at times even hours or for an individual operational shift. These internal reports, exempted from the stringent requirements of peer-reviewed scholarly publication, are nonetheless authoritative institutional documents grounded in frontline operational experience. They present valuable primary evidence of both prevalence and persistence of prank call activity hijacking the Service's emergency response purpose (NAS, 2022). The importance of these communications is not merely descriptive, but also corroborative. Triangulated against Ghanaian media reports and international scholarly analysis of EMS misuse, they form a good empirical basis on which the prevalence of prank calls can be measured. Operational prompts, as their name suggests, capture contemporaneous data as it was experienced in real time by dispatchers and call-takers and thus avoid retrospective tainting that can infuse second-hand accounts. Furthermore, the messages themselves lean towards highlighting the burden on the workload of dispatch centres by reporting quantified or qualitative accounts of how many hoax calls there are compared to genuine emergencies.

Analytically, the messages unveil organizational priorities and issues. The fact that they are made available means NAS leadership considers hoax calls not just an in-house nuisance but a systemic danger deserving more public attention. This conforms with global EMS literature, which emphasizes the importance of openness in reporting operational threats in the building of public trust and invoking collective responsibility (Houston & Li, 2019). In this regard, NAS reporting of prank calls on official platforms can therefore be considered a deliberate public relations

intervention meant to raise sensitization among communities as much as to pressure policymakers for stricter deterrent mechanisms.

The present study utilizes the operational evidence directly by employing it as a rationale for selecting prank calls as the area of research interest. Firstly, such interactions verify the authenticity of inquiring into prank calls qualitatively as they display the persistence of interference with dispatching operations generated by the phenomenon. Second, they provide context to the lived experiences of EMTs and dispatchers, whose operational delays in stories can be situated within a broader institutional recognition of prank behavior. Finally, by treating NAS's own data points as trustworthy operational indicators, the study bases its findings on local realities rather than relying solely on external or comparative literature.

Generally, NAS's public record of prank calls represents a useful Ghana-specific data set to contribute to the evidentiary basis for this research. It indicates both the ubiquity of the issue and its operational significance, substantiating the argument that prank calls in Ghana's EMS system pose an immediate threat to emergency preparedness, effectiveness, and public health outcomes.

2.3 THEORETICAL FRAMEWORK

The present study adopts a multi-theory approach to provide a more thoughtful and comprehensive explanation of prank calls and their operational effects on the Ghana National Ambulance Service (NAS). Prank calls are not simply a matter of misconduct; they are shaped by behavioral psychology, organizational design, and public communication dynamics. By synthesizing six complementary theories, Diffusion of Innovation Theory, Relationship Management Theory, Communication Privacy Management Theory, Theory of Planned Behavior, Systems Theory, and Situational Theory of Publics, the study summarizes the prank call phenomenon on technological, relational, psychological, systemic, and communicative levels.

2.3.1 BEHAVIORAL AND PSYCHOLOGICAL THEORIES

Diffusion of Innovations (DOI) Theory (Rogers, 2003)

The Diffusion of Innovations (DOI) theory provides a structured way of understanding how new ideas, behaviors, and technologies spread through a population. It identifies key stages, **knowledge, persuasion, decision, implementation, and confirmation**, through which individuals or groups adopt an innovation. While most applications of DOI focus on beneficial changes (such as the adoption of agricultural technologies, health interventions, or mobile money services), the framework also allows us to understand the **spread of negative or unintended behaviors**.

In the Ghanaian Emergency Medical Services (EMS) landscape, the nationwide emergency number **112** represents a positive innovation. It was introduced to guarantee universal access to ambulance services regardless of socio-economic status or geographic location. Coupled with the **rapid diffusion of mobile phone technology**, Ghana has mobile penetration rates above 120% (multiple SIM ownership is common), the system ensured that nearly every citizen could potentially reach the National Ambulance Service (NAS) in an emergency.

However, DOI also helps explain how prank calling has developed as a **parallel behavioral innovation**. The adoption of prank calling follows the same diffusion curve as legitimate EMS use:

1. **Innovators:** Early prank callers (often youth experimenting with new mobile phones) tested the boundaries of the system.
2. **Early adopters:** Peer groups who found the act amusing quickly replicated it, reinforcing it as a form of playful rebellion.
3. **Early majority:** Greater widespread exposure by word of mouth and social imitation socialized the act in certain segments of the population.
4. **Late majority and laggards:** While it still happens even in rural communities, the zero-cost implication of dialing 112, coupled with the attitude that "everyone else does it", assures that prank calls persist.

Ghana-specific reports illustrate this process. For instance, NAS has publicly stated **that more than 70% of daily calls are hoaxes or pranks**, sometimes concentrated within short timeframes. A typical example is when dispatchers in Accra receive dozens of false accident calls within an

hour, causing them to deploy scarce ambulances to non-existent incidents while genuine emergencies are left waiting. Such clusters indicate that prank calling spreads in waves, much like other social fads.

DOI also highlights **why prank calling is sticky**:

Relative advantage: From the prank caller’s perspective, the behavior is “fun” and cost-free compared to other entertainment.

Compatibility: It aligns with the existing youth culture of mischief, curiosity, and experimentation with mobile phones.

Complexity: Prank calling is extremely simple, just dial 112 and fabricate a story.

Trialability: The behavior can be easily tried without commitment, making it attractive to experiment with.

Observability: Success (e.g., overhearing a panicked dispatcher or watching ambulances zoom past) can be shared with others, which supports imitation.

In addition to this, DOI provides data on **counter-diffusion methods**, how to diffuse corrective behavior, and attitudes that discourage prank calls. These include:

1. **Educational campaigns:** Like HIV/AIDS or road safety campaigns spread through schools, churches, and media in Ghana, the same can be done with targeted campaigns on the risks of prank calls.
2. **Influencer endorsement:** Chiefs of the community, teachers, and known musicians can serve as opinion leaders to redefine EMS use as a grave, life-saving duty.
3. **Technological filters:** Caller ID systems, SIM registration enforcement, and automated call-back verification can serve as counter-innovations to limit prank call success.
4. **Positive peer contagion:** Campaigns that highlight youth who responsibly use EMS—“heroes who saved lives by calling 112”, can help create new norms that diffuse across schools and communities.

Thus, this frames prank calling as a socially contagious innovation diffused widely through structural, cultural, and technological enablers. In the context of this study, this framework is very important because it explains not only **how and why prank calls spread** but also lights up **pathways through which corrective measures** could diffuse across Ghanaian society to reduce their impact on the National Ambulance Service.

COMMUNICATION PRIVACY MANAGEMENT (CPM) THEORY (PETRONIO, 2002)

Communication Privacy Management (CPM) Theory describes how people manage to control the disclosure and concealment of private information through the use of "privacy boundaries." In most interpersonal and organizational contexts, CPM explains how people make decisions about what information to reveal, to whom, and in what circumstances. Transferred to Emergency Medical Services (EMS), it is even more useful because authentic emergency communication depends on the full, honest, and timely disclosure. An authentic caller must disclose sensitive personal information like the nature of an injury, who they are, the status of the patient, and their precise location. When these facts are disclosed honestly, dispatchers can triage, mobilize resources, and save lives. Prank calling, however, is an aberration of privacy boundary management. Instead of protecting intimate information for sound motives (i.e., stigma, privacy, fear of judgment), prank callers abuse anonymity and selective disclosure. They provide fabricated, incomplete, or misleading information that simulates an emergency when one is not present. The use of communication boundaries as a weapon disrupts trust in the caller-dispatcher relationship and degrades emergency triage accuracy.

For example, a prank caller can dial in a deadly accident on the Accra–Tema road and give imprecise or inconsistent location details ("near the roundabout" or "short of the tollbooth"). Dispatchers, responsibly and professionally bound under a duty of care, cannot ignore such calls even if they are suspicious. Consequently, they send limited ambulances and personnel. When they do arrive, they may find nothing, with time, fuel, and human resources wasted. Meanwhile, an actual emergency, a cardiac arrest at Madina, goes ignored. In this situation, the prank caller's creation of information boundaries not only misdirects resources but also indirectly compromises actual lives.

CPM also makes dispatcher vulnerability clearer. Compared to informal chat friends, dispatchers can't confront or reject service aggressively when they suspect lying, because the risk of false negatives (falsely perceiving an actual emergency) is too high. This imbalance places prank callers in a position of power through concealing, as they are aware that dispatchers must respond to even low-credibility disclosures.

Drawing on CPM, this study sheds light on many core dynamics:

1. **Information distortion:** How prank callers generate false information or exploit anonymity.
2. **Operational strain:** How withholding or distorting information forces dispatchers to waste limited resources unnecessarily.
3. **Boundary negotiation:** How dispatchers attempt to ask questions, test, or confirm caller information without scaring off legitimate callers.
4. **Training implications:** How call-takers can be instructed in structured questioning, red-flag detection, and caller profiling techniques to more effectively manage deceptive interactions.

For instance, dispatchers could be trained to hear for "leakages" of communication like uneven information, background noise suggesting a non-emergency environment, or characteristic indicators like muffled laughter. Likewise, standardized questioning protocols (e.g., requiring callers to repeat the location, confirm the number of victims, or describe visible injuries) could tell emergencies apart from hoaxes.

In the Ghanaian context, where prank calls can generate up to **80–98% of daily NAS traffic**, CPM provides a theoretical framework for explaining not just that prank calls do occur, but how they come into being communicatively at the call-taking level. It shows that the issue is not necessarily one of technology or operations, but essentially one of information boundary manipulation in interaction.

For this research, CPM is therefore indispensable. It allows the research to investigate how hoax calls intercept the caller-dispatcher transaction, the strategies dispatchers are currently implementing in response to fraud, and how training, procedures, and social awareness can aid in the rebuilding of integrity in emergency information exchange. Placing prank calls as a failure in privacy boundary management necessitates that the present study emphasize that effective EMS response in Ghana is not so much dependent on facilities but also on sound communication practices.

THEORY OF PLANNED BEHAVIOR (TPB) (AJZEN, 1991)

The Theory of Planned Behavior (TPB) is a robust theory describing why people engage in certain behavior, particularly behavior that could be considered irrational or socially undesirable. It posits that human action is shaped by three interrelated determinants: attitude towards the behavior, subjective norms, and perceived control of the behavior. Applied to prank calling in Ghana, TPB offers a complex account of why individuals misuse the National Ambulance Service (NAS) emergency number (112) despite having wide-ranging awareness campaigns and self-obvious risks to public health.

1. Attitudes towards prank calling.

Attitudes determine an individual's evaluation of whether or not an activity is good, bad, pleasant, or risky. In prank calling, others among youths and even adults frame it as adventurous, funny, or playful. For instance, calling the NAS to report a "fire outbreak at Makola market" as a false report is a way of entertaining peers or passing leisure time for a teenager in Accra. If prank calling is viewed as clean humor, rather than a dangerous activity that can delay ambulances and cost lives, then positive orientation greatly predicts participation.

The persistence of such a belief helps to account for why information campaigns simply stating "prank calls are wrong" will have little impact. Unless presented with strongly held counter-attitudes, witness, say, from families who lost someone through loss of life because an ambulance had been delayed due to a hoax call, it is conceivable that the behavior will continue to be

downplayed. This is consistent with TPB's insight that attitudes must be reframed by direct cognitive and affective appeals.

2. Peer reinforcement and subjective norms

Subjective norms refer to perceived social pressures to do (or not to) something. Throughout much of the schools and neighborhoods of Ghana, prank calling NAS becomes made regular as a regular source of entertainment. Prank calling is reinforced by groups of peers challenging one another to call, rewarding the act with laughter, approval, or prestige. In these contexts, the caller is not just an individual acting alone but is responding to group norms that legitimize mischief.

For example, anecdotal evidence suggests that among some junior high schools, students wager on who would "get an ambulance to come out for no reason" and turn it into a game. Prank calling, in such instances, is a socially sanctioned ritual and not an isolated deviant act. TPB illustrates how these norms create a powerful motivational force, rendering prank calling a rational peer group activity in spite of perceived danger.

3. Perceived behavioral control (PBC) and impunity.

Perceived behavioral control refers to an individual's belief in how easy or hard a behavior is to perform and the likelihood of being punished. Ghanaian prank callers feel that it is easy to prank call since it is cheap and risky. It costs nothing to call 112, mobile network coverage is widespread, and callers are anonymous due to weak technological tracing and weak enforcement.

For example, a youth in Madina might think: "No one has ever gotten arrested in my neighborhood for prank calling; the NAS people will simply hang up." Such a belief about impunity lowers psychological barriers and makes such a call rational behavior, given the context. Weak institutional control thus facilitates prank calling by sending the message that it has little or no risk.

Implications for this study

By the use of TPB, this research recognizes that prank calling cannot be downplayed as ignorance or naughtiness; it is the result of interactive **social, structural, and psychological forces**.

1. Attitudes are responsible for the reasons why prank calls are downplayed as jokes rather than being viewed as harmful.
2. Subjective norms are responsible for the reasons why prank calls are favored in group settings and spread as a form of social entertainment.
3. Perceived behavioral control explains how prank calls persist despite campaigns, since it is perceived to be risk-free.

This theory directly guides the aims of the current study:

- To explore how attitudes towards prank calling are formed and sustained within Ghanaian societies.
- To offer evidence on the role of peer and social norms in sustaining prank call culture.
- To explore how lax enforcement and technology deficits sustain the feeling of impunity.

Policy and practical implications

The TPB model advises interventions to **target all three dimensions simultaneously**:

1. **Attitudes:** Mass education efforts must go beyond imprecise threats and use emotionally compelling stories, e.g., survivors' testimonies or dramatizations, to highlight the expense of prank calls in terms of lives destroyed.
2. **Subjective norms:** Use of peer leaders, youth trend setters, and school life can help reform group norms, rendering prank calling socially unacceptable instead of something one does for fun.
3. **Perceived behavioral control:** Improving caller ID technologies, increasing publicized prosecutions, and making enforcement visible can shift people's perceptions from impunity to accountability.

All in all, TPB asserts that prank calls persist not because people are uninformed but **on account of a trilogy of positive dispositions, congruent social norms, and inadequate control mechanisms**. In this study, TPB is employed to dismantle these parameters, relating them to real-world implications for EMS in Ghana and to give insights into the development of behavior change interventions to have the greatest effect.

INTEGRATION OF BEHAVIOR AND PSYCHOLOGICAL THEORIES

Together, **Diffusion of Innovations (DOI)**, **Communication Privacy Management (CPM)**, and **the Theory of Planned Behavior (TPB)** provide a powerful behavior-psychology framework for examining prank calls to the Ghana National Ambulance Service (NAS). Together, the theories explain different but complementary facets of the problem, allowing the present study to escape descriptive banality and ask how prank calls emerge, diffuse, and persist.

DOI: How social and technological abuse spreads

The Diffusion of Innovations theory (Rogers, 2003) views prank calling as a behavior diffusing through society in a similar manner to other innovations. In Ghana, mobile phone diffusion and offering free access to the 112 emergency number made up the technological infrastructure under which prank calling diffused. Once some individuals discovered that prank calls can be made anonymously and without any financial cost, the behavior soon diffused among young people and peer groups. For instance, in urban areas such as Accra or Kumasi, students can emulate neighbors who boast of "successfully sending an ambulance on a wild goose chase." DOI describes how these behaviors are transmitted, utilized, and normalized, especially in a society where naughty behavior is socially approved. Just as public health campaigns diffuse good innovations (e.g., handwashing), counter-diffusion strategies, such as youth-targeting education or technology-facilitated call filtering, are required to reverse prank call trends.

CPM: Deception and information withholding on calls

While DOI is responsible for the spread, Communication Privacy Management theory (Petronio, 2002) is useful for understanding the functioning of prank calls in practice. EMS call-taking is based on honest disclosure of private information, caller identity, location, and patient condition. Prank callers distort or withhold this information deliberately, violating privacy boundaries to manipulate dispatchers. For instance, a caller might assert, "There is a car accident at Circle," without providing credible information. Dispatchers, under a duty of care, are obligated to respond to the call as valid, even though indicators (such as laughter or ambiguity) might be absent. By considering this through CPM, the research acknowledges that prank calls are not merely "false alarms," but actual manipulations of communication transactions. Instructing dispatchers to detect red-flag indicators of deception while maintaining the integrity of honest emergencies becomes a significant operational undertaking.

TPB: Why do people continue despite awareness campaigns

Finally, the Theory of Planned Behavior (Ajzen, 1991) sheds light on why prank calls persist in spite of being well known to be dangerous. TPB specifies three drivers: attitudes (prank calls as harmless fun), subjective norms (peer groups reward trashing), and perceived behavioral control (slight enforcement = low chance of getting caught).

In Ghana, despite warnings during campaigns that prank calls are wasteful, young people are likely to dismiss such warnings as hypothetical or irrelevant. If prank calling is followed by laughter, social acceptability, and absence of visible sanctions, TPB then predicts that the behavior would be persistent. This is indicative of interventions that change attitudes (through dramatic campaigns showing life-threatening consequences), transform norms (through the use of schools, religious leaders, and opinion leaders), and enhance control measures (with caller ID technology and visible prosecutions).

Complementarity of the three perspectives

Combined, the three theories offer a multi-layered model of analysis:

- DOI captures how prank calling spreads socially and technologically.
- CPM captures how prank calls are carried out using deception and information manipulation.
- TPB captures why individuals continue prank calling despite being aware of its danger.

Together, they position this study to place prank calls not as spontaneous outbursts of chaos but as diffusion dynamics, communication strategies, and social psychology-influenced behaviors.

Application to the current study

In applying itself to these perspectives, this study has several contributions:

1. It places prank calls within broader theories of behavioral diffusion rather than treating them as isolated anomalies.
2. It analyzes the interactional dynamics of prank callers and dispatchers to trace communication vulnerabilities.
3. It situates prank calling within Ghanaian social institutions, showing the way peer norms, impunity, and attitudes keep the problem in motion.
4. It informs multi-level interventions, technological (call tracing), communicative (dispatcher training), and social (peer-led campaigns), that can reduce prank call rates and keep EMS credibility intact.

In brief, the institutionalization of DOI, CPM, and TPB enriches the research on prank calls by capturing their diffusion, practice, and endurance, and provides the conceptual foundation for this research's inquiry into their impact on NAS activities in Ghana.

2.3.2 ORGANIZATIONAL AND SYSTEM THEORIES

RELATIONSHIP MANAGEMENT THEORY (LEDINGHAM & BRUNING, 2000).

Relationship Management Theory holds that the long-term achievement of any organization is inherent in the quality of its relational development with the stakeholders. Trust, openness, commitment, satisfaction, and mutual control are the premises of such relationships. For the

National Ambulance Service (NAS), the phenomenon of prank calls tends to tug at these relational dynamics at large.

Prank calls erode trust, a fundamental pillar. When dispatchers are given high volumes of false alarms, they are dubious about returns that prove to be real, which inadvertently prolongs verification and response. Over time, this breaks the public's confidence that NAS will respond fast and aggressively upon invocation. Similarly, frontline staff engagement can also weaken; EMTs continuously answering fake calls are susceptible to burnout, irritation, and demoralization. These emotional impacts can sap morale and reduce their inclination to go the extra mile in real emergencies.

The public dimension of NAS's relationship also suffers. Communities will begin to question the reliability and competence of ambulance services, particularly when prank calls divert resources away from genuine emergencies. For instance, if a patient dies following a delayed response due to an ambulance having been sent to a prank location, the public will point fingers at NAS, not at the prank caller, thus ruining its reputation. This relational tension highlights the fact that NAS's performance is not being measured purely in terms of internal processes, but the quality of service provision perceived by its publics.

The use of Relationship Management Theory allows for this study to examine prank calls not only as operational disruptions, but as relational crises. It channels the problem into one that breaches the social contract between NAS and its publics. The theory also offers means of solution:

1. Restoration of trust through transparency, public declaration of the scope and impact of prank calls.
2. Increase in mutual understanding through ongoing public education campaigns emphasizing shared responsibility for EMS.
3. Deepening commitment by engaging communities as allies rather than passive beneficiaries, for example, through neighborhood patrol schemes or youth engagement projects that frame ambulance services not as "theirs" but as "ours."
4. Enhancing satisfaction by ensuring concrete gains in response reliability, which promise citizens that only genuine emergencies are attended to first.

Lastly, Relationship Management Theory asserts that NAS can only respond to prank calls with punitive measures, but that it has to establish a healthier, more robust relationship with its publics. This way, the Service can restore trust, reduce abuse, and reassert its legitimacy as an integral institution in Ghana's health and emergency framework.

SYSTEMS THEORY (VON BERTALANFFY, 1968).

Systems Theory views organizations as living systems made up of interdependent subsystems that have to harmonize together for the system to be effective as a whole. In such a system, disruptions in one aspect are bound to cascade through the others, touching both output and overall stability. Referring to the National Ambulance Service (NAS), prank calls demonstrate how a seemingly minor action at the input point—a false emergency call by an anonymous person- can destabilize the efficacy and integrity of the entire chain of emergency medical services. During the input phase, prank calls are routed into the system via dispatch centers, wasting precious operator time and resources. Rather than handling actual emergencies, dispatchers are forced to assess and reply to fake calls, thus hindering the responsiveness of the system.

At the procedural level, disruption is magnified. Dispatchers, professionally bound, routinely mobilize ambulance units based on suspicion. This triggers a cascading series of unnecessary procedures: fuel is consumed, EMTs are unnecessarily dispatched, and service readiness decreases. These phantom mobilizations create a bottleneck phenomenon, in which there are fewer ambulances ready to respond to genuine emergencies, leading to extended response times for patients in genuine life-threatening emergencies.

At output, the ultimate performance of the system is measured in terms of consequences. When hoax calls result in delays to actual care or the non-arrival of ambulances in a timely manner at the patient's bedside, the consequence can be catastrophic, loss of lives, aggravation of morbidity, and eroded public confidence in the system. In addition, public perceptions of ineffectiveness serve as adverse feedback into the system, further straining NAS's legitimacy and staff morale.

Systemically, prank calls are systemic shocks, not isolated irritations. Each prank call is a waste of money and resources, an overextension of human capital, and an erosion of institutional trust.

Interconnectedness among EMSs is such that what is first a prank at the micro level spreads through to the macro level, generating inefficiencies and undermining resilience.

Worth mentioning is that Systems Theory also indicates avenues of mitigation. Resilient systems must have mechanisms for self-regulation and adaptation:

1. Technology filters (caller ID, geo-location tracking, and call screening through artificial intelligence) can be used as input buffers to reduce penetration of hoax calls.
2. Organized dispatcher protocols can refine decision-making so that it enables greater differentiation between legitimate and prank calls at the process level.
3. Redundancy of resources (standby ambulances or first responders based at community levels) can enable the system to maintain resilience despite pranks extracting resources.
4. Public education and feedback mechanisms can reorient social behavior, reducing prank calls and enhancing legitimacy.

Systems Theory places prank calls; therefore, as more than matters of behavior, they are systemic vulnerabilities exposing a weak point in NAS's design for operation. Positioning prank calls as disruptions to an interdependent system of delicate balance, this study underscores the necessity for adopting holistic, multi-level interventions that preserve efficiency, reliability, and resilience in Ghana's EMS.

2.3.3 PUBLIC COMMUNICATION THEORY SITUATIONAL THEORY OF PUBLICS (GRUNIG & HUNT, 1984).

The Situational Theory of Publics (STP) provides a useful communication model for understanding why some groups of people are engaged with social or organizational issues and others are passive or disengaged. It proposes that three variables can forecast levels of public activity:

Problem recognition – the extent to which people recognize that an issue exists and needs attention.

Constraint recognition – the extent to which people perceive that they can act to reduce the issue, or whether constraints impede them from doing so.

Level of involvement – the extent to which people directly identify with or are affected by the issue.

When applied to describe prank calling and its impact on Ghana's National Ambulance Service (NAS), STP is effective in describing why the Ghanaian public has failed to organize against prank calling, even as the public is aware of its harm.

1. **Problem Recognition:** Even though Ghanaians are aware that prank calls constitute a waste of NAS resources, they may not fully realize the operating and life-threatening consequences. For instance, a prank call could cause a delay in an ambulance arriving for a pregnant woman in obstructed labor or a victim of a road accident. But short of witnessing such cases firsthand, many members of the public perceive prank calling as "harmless fun" or "childish behavior" instead of a public safety emergency. Such a low level of alarm undermines collective problem recognition.
2. **Constraint Recognition:** Even though people recognize prank calling to be harmful, they believe that they are powerless to stop it. For instance, members of society assume that only law enforcers or telecom companies can stop the menace without knowing that grassroots accountability and education campaigns can work. Additionally, technological limitations (such as the inability to trace easily) enhance the perception that prank calling cannot be halted, hence helplessness.
3. **Level of Involvement:** Ghanaians are only deeply engaged with EMS when they or a friend or family member requires an ambulance. Otherwise, hoax calls are a distant issue of no personal concern. It is the reason why mobilization is intermittent. People are outraged when a disastrous delay makes the headlines, only then to lapse into disengagement.

STP categorizes the public into four groups:

- **Non-publics** – people who neither find prank calls a problem nor are motivated.
- **Latent publics** – people who are affected by prank calls but do not recognize them as a problem.

- **Aware publics** – people who find hinge prank calls a problem but do not respond because of constraints.
- **Active publics** – people who perceive the problem and do something about it.

In Ghana, prank calls largely exist within the latent and aware publics, with not many active publics mobilizing against the problem. This article uses STP to show how communication campaigns, in the guise of specific awareness drives, communal discourse, and media campaigns, can advance the public from latent/aware to active.

For example:

1. Recognition of the problem can be reinforced by emotionally charged campaigns focusing on real victims who were harmed due to prank call–induced delays.
2. Restrictions can be minimized by giving citizens open channels to report annoying callers, working with telecommunications companies to block chronic offenders, and permitting local leaders to speak out.
3. Participation can be maximized by taking the issue to the neighborhood level, informing everyone that prank calls in your community might occur for your family tomorrow.

With the use of STP, this study places prank calling not only as an organizational and behavioral issue but also as a communication challenge in the public sphere. It emphasizes that NAS cannot fight prank calling on its own; it must mobilize the public to become active collaborators in defending scarce emergency resources.

2.3.4 SYNTHESIS OF THEORETICAL FRAMEWORK

Synthesizing six complementary theories, the study develops a combined framework to analyze prank calls and their operational effects on the Ghana National Ambulance Service (NAS). Each theory maintains a distinct element of the issue, and together they form a multi-level explanation that transcends superficial descriptions. The synthesis shows how prank calls are both behaviorally, communicatively, organizationally, systemically, and socially oriented.

1. Behavioral and Psychological Theories (DOI, CPM, TPB)

These theories at the group and individual behavior level explain how prank calling emerges, spreads, and persists: Diffusion of Innovations (DOI): Prank calling diffuses as an "innovation," spreading among peer groups and mobile connectivity. The current study utilizes DOI to illustrate that prank calls are not isolated expressions of boredom but rather a contagious social practice facilitated by technology (free mobile connectivity, anonymity). This goes a long way in elucidating the persistence of prank calling in Ghana despite long-term awareness campaigns.

Communication Privacy Management (CPM): Prank calls function by withholding and distorting information. In valid calls, presenting accurate information is required; in bogus calls, deception disrupts triage and dispatch accuracy. This study utilizes CPM to analyze how hoax callers exploit anonymity and information asymmetry and how dispatchers can learn to identify deceptive signals without overlooking genuine emergencies.

Theory of Planned Behavior (TPB): Prank callers view their conduct as harmless, socially acceptable, and low-harm. For this reason, prank calls continue to be prevalent in spite of citizens' awareness that they are incorrect. With the aid of TPB, the study identifies attitudes, peer norms, and perceived impunity in sustaining prank calls. It also discovers that there are points where intervention can intervene to modify conduct, by altering norms, developing deterrents, and changing views regarding prank calling from "harmless fun" to life-threatening misbehavior.

Together, these three theories provide the behavioral-psychological model required to comprehend prank calls as repeated, learned, and socially reinforced behavior.

2. Organizational and System Theories (Relationship Management, Systems Theory)

Organationally, prank calling is not just behavior; prank calling creates structural and relational disturbances in NAS. Relationship Management Theory: NAS depends on long-lasting trust and positive relations with the public for its validity. Prank calls are undermining that because they demoralize EMTs, erode dispatcher confidence, and annoy communities with delays. An application of the theory in this research demonstrates how prank calls undermine NAS's relational

capital and why trust needs to be restored through open communication, educational campaigns, and stakeholder engagement.

Systems Theory: NAS is a fragile system with interdependent parts (dispatch, fleet, EMTs, hospitals). Prank calls cause systemic disruptions—triggering unwarranted ambulance dispatches, exhausting available fuel, demoralizing EMTs, and delaying actual emergencies. The study invokes Systems Theory to frame prank calls as system-wide disruptions, on which integrated reforms (e.g., caller ID technology, cross-agency coordination, and resource management) are warranted.

Together, these theories prove that prank calls are not to be trifled with; they disrupt NAS's internal processes and deplete its ability to carry out its core mission.

3. Public Communication Theory (Situational Theory of Publics – STP)

At the societal level, prank calls persist partly because citizens are indifferent or disconnected. Situational Theory of Publics (STP): The majority of Ghanaians are aware of prank calls as a problem, but do not actively react against them. High constraint recognition ("only NAS or telecom companies can fix this") and low involvement are among the reasons why the public is passive. In this research, STP is utilized to reveal why communities have not reacted strongly to prank calls and how NAS communication strategies can engage latent publics to become active publics, empowering citizens to voice opinions against prank calls, report violators, and impose norms of responsible EMS use.

4. Synthetic Insights for the Current Study

With the incorporation of these six theories, the study takes on a multi-level model that directly informs its research:

1. Behavioral/Psychological Theories (DOI, CPM, TPB): Explain why prank calls occur (diffusion, deception, social norms) and offer interventions concerning caller attitudes, peer influence, and communication dynamics.

- Application: The study will examine how and why individuals perform prank calls using interviews and anecdotes.
2. Organizational/System Theories (Relationship Management, Systems): Explain how prank calls disrupt NAS operations, relationally (trust erosion) and structurally (system inefficiencies).
 - Application: The study will examine EMT and dispatcher strain experience to identify systemic vulnerabilities.
 3. Public Communication Theory (STP): Explains why the broader public fails to mobilize against prank calls and how communication can change behavior.
 - Application: The study will analyze community attitudes toward NAS credibility and inaction by the public, with recommendations for participation campaigns.

5. Contribution of the Synthesis

This theory synthesis assures that the research is not concerned with one particular outlook but addresses prank calls as:

- A behavioral epidemic (spreading through diffusion, peer norms, and weak deterrence).
- A communicative distortion (deception, information withholding, and dispatcher-caller misalignment).
- An organizational crisis (resource wastage, inefficiency, demoralization, erosion of trust).
- A public engagement failure (citizen passivity, weak advocacy, lack of collective action).

Thus, the synthesis equips this research to diagnose prank calls as a multi-dimensional issue and to provide multi-level interventions: behavior change interventions, organizational change, public information campaigns, and systemic safeguarding.

2.4 RELEVANCE OF THEORY

The use of several theories is pertinent in describing a nuanced explanation of prank calls within the operational system of the Ghana National Ambulance Service (NAS). This research necessarily integrates behavioral-psychological, organizational-systemic, and public communication theories to deal with the complexity of prank calls, which are not just individual acts of foolishness but also group, cultural, and organizational problems. Each theory contributes something unique, but all collectively form a synergistic framework that strengthens findings analysis and recommendations.

To begin, the Diffusion of Innovations (DOI) theory situates prank calls within a social and technological context. Instead of looking at such calls as random or disjointed, DOI explains how emergency number misuse diffuses in peer networks, social learning, and even virtual culture. In Ghana, where there is intense peer influence and communal dwelling, prank calling quickly gets normalized, particularly among youth who emulate one another. This insight is key to why prank calls persist in places and generations despite public information campaigns. The contribution of this theory lies in that it allows NAS and policymakers to be able to anticipate the way behaviors in prank calls diffuse and to be able to design counter-approaches to stop diffusion through targeted education and community influencers.

Communication Privacy Management (CPM) bridges the gap by examining the role of information hiding and manipulation in prank calls. Callers make use of anonymity, provide false information, or fabricate situations, thus abusing the openness of NAS's communication channels. These acts contravene dispatchers' ability to allocate resources effectively. The theory contributes to the study by highlighting deception as a communication dynamic and proposing solutions such as caller identification, controlled access systems, or culturally sensitive communication campaigns as ways of reducing the perceived "freedom" of prank calling.

The Theory of Planned Behavior (TPB) contributes to the behavioral component further by examining the psychological roots of prank calling. It explains why individuals continue to engage in prank calls despite the fact that they waste money and jeopardize lives. Attitudes (for example, finding prank calls amusing or harmless), subjective norms (friends' support or lack of disapproval), and perceived behavioral control (toll-free emergency numbers available without penalty) support the behavior's persistence. The importance of TPB is that it not only explains

behavior after the fact but also predicts behavior in the future, which means this research can suggest interventions that target attitudes, restate social norms, and strengthen sanctions to reduce the frequency of prank calling.

Organizationally, Relationship Management Theory (RMT) calls attention to relational damage from prank calling. Confidence, commitment, and respect between NAS and its publics are eroded when deceptive calls are most prevalent, rendering EMTs jaded, depressing dispatcher morale, and frustrating citizens who wait through delays in real emergencies. The theory is enriched by not merely framing prank calls as operational inefficiencies but as relationship crises undermining NAS's credibility in the public eye. This relevance ensures that the research centers on trust-rebuilding efforts such as open reporting, media engagement, and stakeholder coalitions.

Systems Theory adds richness by placing prank calls in the context of system disruptions. NAS is a collection of interrelated subsystems, including dispatch, ambulance logistics, staff, hospitals, and community feedback loops. A prank call disrupts the dispatch unit, but the impact has a ripple effect across the entire system: ambulances waste fuel, actual emergencies are delayed, employee morale declines, and public trust is undermined. Applying Systems Theory, the study illustrates the cumulative impact of prank calls and advocates for systematic solutions that build resilience at multiple levels of the EMS system.

Finally, the Situational Theory of Publics (STP) highlights the communication gap between NAS and the public. While it is a problem acknowledged by most Ghanaians, few mobilize to combat it due to constraint recognition (believing nothing can be done) or lack of self-involvement. This theory is useful by giving NAS a framework for segmenting its publics: those who are aware but inactive, those who care not, and those who are willing to act, and tailoring discrete communication methods that translate passive awareness to active advocacy. To give an example, schools, religious communities, and youth organizations can be enlisted to promote responsible emergency service use.

As a whole, these six theories offer distinct but complementary explanations. They ensure that this study is not just documenting the frequency of prank calls but is actually based on a deep

explanatory theory. By connecting behavior diffusion, communication dynamics, organizational trust, systemic interdependence, and public engagement, the study can:

Account for prank calls as socially learned behaviors rather than isolated mischief.

Frame prank calling as a communication issue rooted in anonymity, fraud, and mismanagement of information.

Predict recurrence of prank calls using behavioral intention models (TPB).

Reveal relational and trust-based costs to stakeholders and NAS.

Illustrate how inefficiencies in the system result from localized disruptions.

Prescribe a blueprint for public mobilization and stakeholder collaboration for the resolution of prank calls.

Lastly, the explanatory value of these theories collectively shifts the research from a technical procedural problem to a multi-dimensional question that has policy, communication, and community connotations. Combining the theories ensures that the research not only establishes the problem but also demarcates evidence-based, long-lasting means of reclaiming the credibility, efficiency, and resilience of the Ghana National Ambulance Service.

2.5 DEFINITION OF KEY TERMS

This sub-section defines and identifies the key terms used in the research to ensure clarity, consistency, and contextual meaning. The definitions are operationalized based on the study objectives and as they relate to prank calls and how they affect the Ghana National Ambulance Service (NAS).

Prank Calls: Prank calls, also referred to as hoax calls or false alarms, are deliberately made telephone calls with false, deceptive, or non-genuine information, and such calls are often made

for the purpose of entertaining the caller or troubling the recipient. In this research, prank calls specifically refer to false or malicious calls initiated to NAS's toll-free emergency number (112). Unlike genuine but uninformed calls and incidental misdials, prank calls are characterized by intentional falsehood, anonymity, and lack of actual emergency. They constitute a major obstacle to successful emergency response by wasting valuable resources and undermining the public's faith in NAS.

Emergency Medical Services (EMS): Emergency Medical Services are an organized system of trained personnel, vehicles, communications equipment, and medical facilities designed to act promptly to medical emergencies, trauma, or accidents. EMS in Ghana is primarily provided by the NAS and includes pre-hospital care, dispatching of ambulances, transport to medical facilities, and interventions for life-saving. Operationally, EMS is used within this research to describe the continuum of emergency response services that are interrupted, delayed, or made less effective by prank calls through unnecessary mobilization of resources.

National Ambulance Service, Ghana (NAS): National Ambulance Service, Ghana is a government-established emergency medical response system under the Ministry of Health with the mandate of providing pre-hospital care, ambulance transports, and prompt response to healthcare emergencies in the country. Licensed in 2004 and formally expanded under Act 829 of 2011, NAS is one of the major contributors towards the provision of healthcare in Ghana. In this study, NAS is the central agency whose operations, reliability, and effectiveness in serving are examined in response to prank calls and their impacts.

Dispatch Operations: Dispatch procedures consist of the policies and protocols of answering emergency calls, assessing information obtained, determining the degree of urgency, and dispatching ambulances or personnel to the site. Successful dispatching relies on accurate information, adequate communication equipment, and effective decision-making. Dispatch procedures are an important focal area in this study since prank calls bias decision-making, squander resources, and divert attention from real emergencies.

Operational Consequences: Operational impacts are the actual, systemic, and logistical impacts prank calls have on NAS's ability to deliver timely emergency care. They encompass wasted fuel,

preventable wear and tear on ambulances, heightened fatigue among emergency medical technicians (EMTs), decreased response times to real emergencies, reduced system efficiency, and reduced staff morale. Operational impacts for this research are the measurable disruptions that prank calls cause within the EMS system.

Public Perception: Public opinion relates to the views, beliefs, and judgments of the citizens towards NAS and its services. It involves how citizens view the reliability, credibility, and availability of the ambulances. For prank calls, public opinion plays two roles: prank calls both shape perceptions of NAS (e.g., when ambulances are held up by decoy distractions, communities lose faith in NAS), and are themselves influenced by public opinion (e.g., viewing prank calls as harmless play rather than odious behavior).

Trust: Trust here, as applied in this study, refers to the confidence and trust citizens have that NAS will reply quickly, reliably, and adequately to emergencies. It also encompasses the confidence of NAS staff in the accuracy of information provided by callers. Prank calls erode trust on multiple levels between dispatchers and the public, EMTs and the public, and citizens and the emergency system in general. Trust is therefore both an intervening variable (induced by prank calls) and a necessary condition for successful EMS delivery.

System Disruption: System disruption refers to the interruption or collapse of normal organizational functioning as a result of some external or internal stimulus. In this research, prank calls are conceptualized as system disruptions that destabilize NAS operations through false alarms, wastage of resources, and reduced service dependability. This is, as Systems Theory suggests, where prank calls are envisaged as shocks that reverberate throughout the entire EMS system.

Publics: Publics, as conceptualized by Grunig and Hunt's Situational Theory of Publics, are groups of individuals with a common concern, issue, or interest in an organization. Publics within the current study are Ghanaian citizens who interact with NAS directly (as emergency callers, patients, or relatives) or indirectly (as members of the community, witnesses, or stakeholders). They are differentiated as active (the individuals who recognize prank calls to be harmful and campaign

against them), aware but inactive (the individuals who recognize the issue but do nothing), and latent or non-publics (the individuals who are unaware or indifferent to the problem).

Anonymity: Anonymity is a state of being traceless or nameless within an interaction. With prank calls, anonymity is typically facilitated by toll-free call systems, absence of caller identification, and ineffective technology or legislation for tracing. Anonymity provides assurance to prank callers because they are exposed to negligible chances of punishment or identification. This concept is useful for the explanation of how prank calls persist in the face of awareness campaigns.

Awareness Campaigns: Awareness campaigns are deliberate communication efforts designed to inform, educate, and influence public attitudes and behavior. NAS has utilized campaigns of different sorts to make people aware of the danger of prank calls, which are normally conveyed through radio, television, and local participation. In this study, awareness campaigns are discussed in terms of their impact, limitations, and possible redesign using theoretical expertise to change attitudes, norms, and behavior towards prank calling.

2.6 SUMMARY OF CHAPTER

Literature, theoretical foundations, and crucial conceptual definitions for understanding the nature, frequency, and operational effects of prank calls on the National Ambulance Service, Ghana (NAS) have been the focus of this chapter. The chapter went through international and Ghana-local evidence on emergency medical services (EMS) with a focus on both structural concerns and the specific threat posed by prank calls as a persistent threat to time-critical emergency care.

The article began by putting prank calls in perspective within the greater EMS context, emphasizing the direct correlation that response accuracy by the dispatch service, quick response, and dependability in operations play in affecting patient outcomes. Classic evidence on EMS response times established that survival rates significantly plummeted once interventions exceeded five minutes, which explains why prank calls are not playful intermissions but real clinical dangers. Ghana's particular vulnerabilities, i.e., traffic jams, small ambulance fleets, and exposed

communication infrastructure, heighten the risks of prank-delays and thereby turn the issue not just operational but a public health concern.

Literature also highlighted the communication dimension of prank calls. Conversation-analytic evidence demonstrated that receiving calls is an interactional process where accurate disclosure of information is critical. Prank callers hijack this function by withholding, fabricating, or distorting information, thereby weaponizing anonymity and reducing dispatch efficiency. Ghana-specific operational metrics, like NAS's formal reports of hundreds of hoax calls within short time frames, were used as empirical measures of the issue's size and length. Such indicators, if not invariably peer-reviewed, are vital primary evidence and necessitate systematic scholarly scrutiny.

The model theory merged six related theories into a holistic model to provide an all-around approach to the research of prank calls. Psychological and behavioral theories such as Diffusion of Innovations (DOI), Communication Privacy Management (CPM), and the Theory of Planned Behavior (TPB) explained how prank calling socially diffuses, how deceptive communication occurs in the prank calls, and the reasons why individuals continue engaging in the vice despite awareness campaigns. Organizational and systems theories, i.e., Relationship Management Theory and Systems Theory, placed prank calls as incidents that erode trust, demoralize staff, and destabilize NAS's overall system of operations.

Finally, the Situational Theory of Publics (STP) explained why Ghanaian citizens are passive in handling prank calls and how communication strategies can mobilize them into active publics in favor of the protection of emergency resources. Through the integration of the different theories, the chapter demonstrated that prank calls are not haphazard displays of playfulness but systematic acts with systemic, relational, and societal implications.

To avoid conceptual vagueness, the chapter also operationally defined key terms such as prank calls, dispatch operations, operational results, public perception, trust, system disturbance, anonymity, and awareness campaigns. The operational definitions give uniformity to the study and anchor abstract theoretical understandings on concrete realities in the Ghanaian EMS environment.

Overall, this chapter has laid a sound platform for the study by connecting empirical facts, theoretical understandings, and contextual definitions. It turned prank calls into a phenomenon with sweeping clinical, operational, and relational implications for NAS. The literature and theory's conclusions point to the necessity of addressing prank calls not only as operational disruptions but as life-threatening interferences with Ghana's EMS mandate. Building on this theoretical and conceptual platform, the next chapter (Chapter Three) will delineate the methodological approach taken for empirically studying prank calls, outlining the research design, population, sampling procedures, data collection mechanisms, and analytic methods to be employed in conducting the study.

3.0 METHODOLOGY

3.1 CHAPTER INTRODUCTION

This chapter presents the methodological framework guiding research into prank calls and their implications for the operation of the National Ambulance Service, Ghana (NAS). Although Chapters One and Two provided the background, problem statement, and theoretical orientation, the current chapter identifies how the research questions are to be addressed through systematic inquiry. Methodology acts as a bridging link between theory and conclusions such that findings of the study are credible, valid, and relevant (Creswell & Creswell, 2018). The study is situated under the interpretivist paradigm, which centers on comprehending human behavior by interpreting the meaning actors assign to their actions. Since prank calling is not only a technical intrusion but also a socio-cultural action, interpretivism allows the study to gather different perceptions from dispatchers, Emergency Medical Technicians (EMTs), administrators, and residents. As Lincoln

and Guba (1985) imply, qualitative research has a particular competence to uncover contextualized human experience, views, and attitudes that are incapable of being reduced to quantitative measures only.

The qualitative case study approach is employed because the NAS is a bounded system where prank calls hold significant operational and societal ramifications. Yin (2018) argues that case studies are appropriate where there is a researcher who would like to investigate a contemporary phenomenon in its natural context, particularly when the distinction between setting and phenomenon becomes unclear. Prank calls in this study cannot be distinguished from the overall EMS system of Ghana, for example, cultural inclination, public trust, and institutional factors. The case study method thus permits an integrated assessment of the effects of prank calls on dispatch efficiency, ambulance deployment, EMT morale, and public relations.

The approach is also complementary to the research topic and objectives (defined in Chapter One). Specifically, the approach permits the research to:

1. Investigate the frequency and definition of prank calls to the NAS.
2. Investigate the operational, relational, and clinical effects of prank calls on EMS delivery.
3. Assess how prank calls are perceived and felt by EMTs, dispatchers, and residents.
4. Explain potential means of decreasing prank calls and improving NAS credibility.

To achieve these objectives, more than a single data collection strategy will be employed, including semi-structured interviews, FGDs, and document/archival analysis, facilitating triangulation and validity enhancement (Patton, 2015). Data will be analyzed thematically through coding (open, axial, and selective), so that patterns and themes across stakeholder perspectives can be discerned (Corbin & Strauss, 2015).

To ensure rigor, the study uses Lincoln and Guba's (1985) criteria for trustworthiness: credibility (through member checking and triangulation), transferability (through thick description of setting), dependability (through audit trails), and confirmability (through reflexivity and open documentation of decisions). Ethical considerations such as informed consent, confidentiality, and voluntary involvement will also be central to the research process (Orb, Eisenhauer, & Wynaden, 2001).

The rest of this chapter is organized into the following sections:

- Research Design – justification for using a qualitative case study method.
- Population and Sampling – description of the study groups and purposive sampling.
- Data Collection Methods – description of interviews, FGDs, and document review.
- Data Analysis – description of coding and thematic analysis.
- Trustworthiness and Authenticity – strategies for ensuring rigor.
- Ethical Considerations – ensuring protection of participants and use of research ethics.

By explaining these methodological choices transparently and grounding them in dominant qualitative research paradigms, this chapter ensures that the research produces findings that are both academically valid and practically useful to resolving prank calls in Ghana's EMS context.

3.2 RESEARCH PARADIGM

Research paradigm describes the philosophical underpinnings that guide research by establishing assumptions about reality (ontology), the nature of knowledge (epistemology), and the methods used to examine social phenomena (Creswell & Poth, 2018; Guba & Lincoln, 1994). Paradigms are more than theoretical philosophies but rather practical guides that influence questions of inquiry in a study, data collection, and interpreting findings (Scotland, 2012). In the social sciences, paradigm choice matters the most, as it will determine whether human experiences are approached from an objectivist or a subjectivist approach.

This study employs the interpretivist paradigm based on the assumption that reality is multiple, socially constructed, and contextually located (Lincoln, Lynham, & Guba, 2011). Interpretivism rejects the positivist idea of one objective truth obtainable through scientific measurement but instead holds that knowledge is co-constructed through interaction between participants and

researcher (Schwandt, 2014). This is directly applicable in this current research, which seeks to interpret the practice of prank calling in the Ghanaian National Ambulance Service (NAS). Prank calling is not just an interruption to business but also deeply embedded in cultural attitudes, public opinion, and individual motivation. An interpretivist design will allow the researcher to obtain the subtleties by placing participant accounts first and the lived experience.

A positivist framework would be of little application to this study. Positivism is quantifying, objective, and predictive, and often depends on surveys or experiments to yield generalizable outcomes (Neuman, 2014). While such an approach might capture the number of prank calls or find demographic patterns, it would not capture the subjective feeling that prank-calling creates and the relational and emotional effects on dispatchers, EMTs, and neighborhood residents. Since the overall aim of this research is to uncover why prank calls persist and how they affect organizational trust and neighborhood attitude, interpretivism is closer to the research goals.

Similarly, critical realism may also be of use, for it takes for granted that social phenomena do exert real effects while nevertheless acknowledging that our knowledge of them is mediated by human interpretation (Bhaskar, 1998). Nevertheless, however useful in theory construction, the immediate aim of the present study is not to arrive at universal causal laws but to explore context-specific meaning and lived experiences.

Pragmatism, another paradigm, prioritizes resolving practical issues and tends to encourage methodological diversity (Creswell & Plano Clark, 2017). Pragmatism could have been applied in this study, especially owing to the practicality of prank calls to ambulances. Its emphasis on solutions, not deep knowledge of meaning, however, renders it less suitable. The interpretivist paradigm offers a richer, deeper understanding required before designing pragmatic interventions.

Embracing interpretivism also lends support to the theoretical contexts that underlie this study, including Relationship Management Theory, Systems Theory, and Situational Theory of Publics, all of which center on interaction, interdependence, and subjective interpretation of the problem. These theories align well with an interpretivist epistemology that offers greater support for human perception and meaning-making than abstractions of quantification.

In general, the interpretivist paradigm will be the best to utilize in this study because it will enable us to look at prank calls as something greater than individual occurrences but as constructed social realities that influence trust, morale, and effectiveness within the NAS. It puts the researcher in a position to deliver findings that are contextually rich, authentic, and actionable, thereby contributing to scholarly knowledge as well as practical ways of improving emergency service delivery in Ghana (Denzin & Lincoln, 2018; Guba & Lincoln, 1994).

3.3 PHILOSOPHICAL ASSUMPTIONS

Philosophic assumptions are the implicit foundations of all research, influencing the way the researcher understands the world, what constitutes knowledge, and how the inquiry should be conducted (Creswell & Poth, 2018). In qualitative studies, such assumptions are not secondary but central; they influence every decision from study design to interpretation of the findings (Guba & Lincoln, 1994). Their articulation is therefore crucial in order to provide transparency, consistency, and rigor.

In this study, analyzing prank calls and their operational effects to the Ghana National Ambulance Service (NAS), there are four interdependent assumptions brought to the fore: ontology, epistemology, axiology, and methodology.

ONTOLOGICAL ASSUMPTION

Ontology is concerned with the researcher's assumptions about the nature of reality and what is real (Scotland, 2012). Within an interpretivist paradigm, reality is not one objective truth but multiple, subjective, and socially constructed through human interaction, culture, and setting (Lincoln, Lynham, & Guba, 2011). This is the meaning in which what is "real" in a social world is not some universal truth but a set of meanings which groups of people attribute to events, actions, and practices. In the context of this study, prank calls to the Ghana National Ambulance Service (NAS) cannot be reduced to a single quantifiable phenomenon such as the frequency of false calls received annually. While statistics may be able to express the frequency of hoax calls, they are not able to capture the lived experiences, attitudes, and implications of receiving such calls. Prank

calls are instead viewed as socially situated actions that take on different realities depending on the line of sight of the actor.

To prank callers, the act may signify entertainment, rebellion, or peer affiliation. In some communities, making a prank call may be seen as a demonstration of cleverness, a form of mischief that is fun, or even a rite of passage for adolescent peer groups. Such meanings create a socially constructed reality in which prank calling is either normalized or trivialized.

To NAS staff, however, the reality is very different. Dispatchers are able to perceive prank calls as operational disruptions that occupy communication lines, waste their time, and create emotional burnout. EMTs in the field are able to perceive them as morale-deteriorating actions, because each prank call diverts resources away from actual emergencies, slows response times, and sometimes results in unnecessary fatalities. Thus, for operators, prank calls are not harmless jokes but a real and immediate operational threat to the efficiency of Ghana's EMS system.

For community members, yet another reality is evident. To some, prank calls are innocuous entertainment, claiming that "no one really gets hurt" because the ambulance will eventually be returned to base. To others, they are hazardous threats to public safety, especially when genuine emergencies are delayed due to prank-caused diversions. In communities where people already feel they are underserved or distrust public agencies, repeated false responses can even erode confidence in NAS's reliability.

This multiplicity of meanings shows that there is no single "truth" about prank calls. Instead, there are multiple realities depending on cultural, social, and organizational contexts. The prank caller's reality of humor and enjoyment, the dispatcher's reality of irritation, and the community's reality of entertainment or danger all exist at the same time. An interpretivist ontological stance compels the researcher to recognize and respect these different perspectives rather than attributing more privilege to one over another.

By adopting this ontological position, the present study situates prank calls not as isolated events of deviance but as complex social phenomena embedded in broader cultural practices, institutional politics, and communal relationships. In this way, the study is not only able to move beyond figures

but instead illuminate the lived realities of prank calls as they are experienced in different groups within Ghana's EMS environment.

EPISTEMOLOGICAL ASSUMPTION

Epistemology deals with questions of what counts as valid knowledge and how that knowledge is constructed, acquired, and justified (Crotty, 1998; Scotland, 2012). In positivist traditions of thought, knowledge is framed as objective, measurable, and generalizable across context. In interpretivist and constructivist epistemologies, however, knowledge is built up as a co-construction between researcher and participant, subject to social interaction, cultural environments, and personal meaning (Lincoln & Guba, 1985). For this study, which examines prank calls and their operational implications for the Ghana National Ambulance Service (NAS), knowledge is not seen as a given truth to discover but instead as that which must be constructed through discourse, interpretation, and sense-making. The researcher is not positioned outside the phenomenon as a detached observer but becomes engaged in a co-constructive interaction with participants, listening to dispatchers, EMTs, prank callers (when available), and community residents in order to understand the realities they face.

In practice, this translates into the fact that understanding prank calls cannot be comprehended in terms of statistics alone or operational reports (e.g., "NAS received 10,000 prank calls last year"). Although such information is significant, it never tells us why people make prank calls, how dispatchers respond to them, or how communities view their effects. Rather, knowledge has to be constructed by capturing lived stories and experiences that show us more profound insights into motivations, frustrations, and cultural meanings.

For example, a dispatching anecdote about receiving 15 false calls on a night shift conveys a sort of knowledge that exists beyond statistics, it conveys the emotional toll, decision-making stress, and erosion of trust bogus calls create in real life. Similarly, community members may report they never call NAS in emergencies because "too many false alarms make them slow to respond." Such perspectives are reflective of how all knowledge about prank calls is contextually embedded socially and can't be divorced from the circumstances where it arises.

Epistemologically, the study accommodates the fact that everything one is knowledgeable about is incomplete and perspectival. A prank caller's explanation ("we were just joking around") no more excludes the dispatcher's opinion ("it wasted money and put lives at risk") than vice versa. Instead, both are valid kinds of knowledge within their own social contexts of reference. The researcher's task is thus not to impose an integrated "truth" but to interpret, synthesize, and attribute meaning to these multiple perspectives in a way that does them justice to their richness.

Moreover, epistemology in research herein highlights the interactive nature of the researcher. By interviewing, facilitating conversations, and interpreting responses, the researcher is more than a fact gatherer but a co-producer of information. Reflexivity is therefore important, the researcher ought to keep themselves updated about their background, bias, and assumptions and how these may shape interaction and interpretation (Creswell & Poth, 2018).

Generally speaking, the epistemological framework of this study presumes:

1. Knowledge about prank calls is constructed in social interaction and not as objective fact.
2. There are a number of ways of knowing to be acknowledged, dispatcher knowledge, EMT experience, prank call motivations, and societal perception are all valuable.
3. The researcher and participants work together to construct meaning, creating situated understanding that enriches the understanding of prank calls in the context of Ghana's EMS.

This assumption is significant in that it accounts for the study's use of qualitative methods such as interviews and thematic analysis, which work best in the capture of subjective realities and co-constructed knowledge.

AXIOLOGICAL ASSUMPTION

Axiology is concerned with the role of values, ethics, and researcher subjectivity in the research process (Saunders, Lewis, & Thornhill, 2019). In contrast to positivist traditions that strive for neutrality and value-free research, qualitative and interpretivist paradigms embrace the fact that research is unavoidably value-laden; the questions asked, the approaches taken, and the

conclusions drawn are all shaped by the researcher's ethical biases and worldviews (Lincoln & Guba, 1985; Creswell & Poth, 2018).

In this study, which explores prank calls and their effects on the Ghana National Ambulance Service (NAS), values take center stage. The study is driven not by mere curiosity but by a socially significant and ethically pressing concern: prank calls kill, waste scant resources, and undermine public trust in a vital national institution. That the researcher decided to study this phenomenon in the first place is a testament to his or her own valuation of the sanctity of life, social responsibility, and institutional integrity.

Axiologically, several dimensions are applicable:

1. Researcher's Value Commitments

- The researcher values the sanctity of human life, which is directly compromised by prank calls delaying legitimate ambulance responses.
- The researcher is dedicated to equity and fairness, observing that prank calls have a disproportionate impact on vulnerable members of society (e.g., rural dwellers, accident victims, or the elderly) who cannot afford private transport and depend nearly entirely on NAS services.
- An ethical imperative to inform policy and practice development underpins the study, so that findings are not just descriptive but also prescriptive in a way that will help decrease prank calls and fortify NAS operations.

2. Participant Voices and Respect

- The study gives primacy to the lived experience of citizens, EMTs, and dispatchers as co-constructors of knowledge, rather than as passive sources of data. Their frustrations, their coping strategies, and their hopes for change are at the center of the narrative.
- 3. By treating prank callers (where voices are on record) not only as transgressors but as human beings embedded in social and cultural contexts, the study avoids moralizing and instead seeks to understand the underlying motivations and meanings of their behavior.

3. Ethics and Responsibility

- As prank calls impinge upon sensitive issues of public safety, the researcher assumes an ethical obligation of reporting and confidentiality. Interview data is anonymized, and pseudonyms are used to protect the identity of respondents.
- Axiology also informs the interpretive stance of the researcher: findings are reported in a way that prevents stigmatization of entire communities while still bringing out the systemic threat posed by prank calls.

4. Value-Driven Knowledge Production

- Unlike a value-free "counting exercise" (e.g., a count of prank calls), this study clarifies why prank calls matter: they erode public trust, waste taxpayer resources, and threaten life-saving response times.
- Data are interpreted according to normative values—e.g., that public services should be respected, citizens should act responsibly, and the state is responsible for protecting emergency systems from abuse.

For example, when a dispatcher testifies that prank calls made them "hesitate for a split second" before answering a call as legitimate, the researcher values this testimony as more than operational testimony: hesitation brought on by routine deception can mean life or death for patients during real emergencies.

Thus, axiology brings to the fore that the study is not a detached, objective recording of prank calls, but a value-driven research grounded in social justice, public safety, and institutional trust. The value commitment renders the research more relevant to policy-makers, practitioners, and communities, and ensures that the research is working towards positive change in Ghana's EMS system.

METHODOLOGICAL ASSUMPTION

Methodology is the overall approach and rationale of inquiry that connects abstract philosophical assumptions to research practice (Crotty, 1998). It is the connection between paradigms and methods, abstract and concrete, and it governs how data are generated, analyzed, and interpreted. In qualitative research, methodology encompasses more than tools; it is adopting an interpretive position in honoring complexity, context, and lived experience (Creswell & Poth, 2018). For this study on prank calls and their operational effects on the Ghana National Ambulance Service (NAS), the methodological assumption is rooted in interpretivist and constructivist traditions. This has several core orientations:

1. Qualitative, Contextual Understanding

- Instead of seeking universal laws or statistical generalizations, the study attempts to understand meanings and experiences related to prank calls by actors—dispatchers, EMTs, community members, and possibly prank callers themselves.
- For instance, prank calls may statistically represent 80–90% of NAS call volume, yet this number alone cannot explain why they exist, their effect on EMT morale, or why the public tolerates them. Methodology therefore, prefers storytelling with contextual detail to numerical abstraction.

2. Participant-Centered Knowledge Creation

- The study assumes that knowledge about prank calls is constructed in dialogue with participants and not "discovered" through an objective observer.
- Semi-structured interviews allow respondents to define, motivate, and frustrate on their own terms, creating insights that would be hidden within purely quantitative approaches.

3. Inductive, Flexible Logic

- The methodological stance favors an inductive approach, whereby patterns, themes, and categories emerge from the data rather than being imposed a priori (Glaser & Strauss, 1967).
- For example, dispatchers may talk spontaneously about "hesitation" due to a series of hoax calls. This theme, not pre-coded, becomes analytically salient.

- This flexibility reflects the methodological assumption that reality is emergent and fluid, not fixed.

4. Focus on Process and Interaction

- Methodology here also emphasizes process over outcomes. Prank calls are not just events to be counted, but interactions that are shaped by tone of voice, caller–dispatcher rapport, and institutional responses.
- Conversation analysis and theme coding also illuminate the ways that prank calls are built in real time, showing how language and interactional cues shape credibility determinations and dispatch decisions.

5. Holistic Systems Orientation

- Consistent with Systems Theory, methodology recognizes that prank calls affect the entire NAS system, not just individual EMTs. A methodological assumption, therefore, is that analysis should trace consequences across levels, from micro (dispatcher–caller interaction) to macro (institutional trust, public safety).
- This justifies pooling a number of data sources (interviews, official NAS reports, media sources, policy documents) for an integrative understanding.

6. Ethical Responsiveness

- Finally, the methodological assumption is that research on prank calls must remain ethically responsive to the life-and-death stakes of EMS operations.
- This guides methodological choices such as granting confidentiality to respondents (especially dispatchers who may reveal operational vulnerabilities) and eschewing sensationalism when reporting on prank callers.

By making these methodological assumptions, the research is committed to:

1. Using qualitative methods (interviews, theme analysis) to account for a variety of different perspectives.

2. Using inductive reasoning to enable meanings and implications of prank calls to emerge naturally.
3. Accounting for prank calls as interactive and systemic, rather than reducing them to abstract statistics.
4. Being ethically responsible in the process and in the report, in line with the researcher's value commitments.

In effect, the methodological assumption positions the study as an interpretive, participant-centered, ethically grounded research that prioritizes lived experience and systemic complexity over numerical generalization. This allows the research to uncover the "human truths" behind prank calls and their real meanings for Ghana's EMS system.

3.4 RESEARCH APPROACH

The research approach provides the overall outline that guides the researcher on how to address the problem and answer the research questions. Typically, research approaches are categorized into three: quantitative, qualitative, and mixed methods (Creswell & Creswell, 2018). Quantitative methods center on quantitative measurement, statistical testing, and generalizability of findings, whereas qualitative methods focus on exploring meanings, experiences, and social processes in depth (Merriam & Tisdell, 2016). Mixed methods bring together both paradigms to provide complementary knowledge (Plano Clark & Ivankova, 2016).

In light of the objectives of this research, understanding the nature and operational consequences of prank calls on the Ghana National Ambulance Service (NAS) and finding strategies for mitigation, the qualitative method is best appropriate. Qualitative research is well adapted to research that seeks to understand human conduct, social life, and locally situated phenomena that cannot be captured in numbers (Denzin & Lincoln, 2018). Prank calling is not only an operational

issue but also a socially constructed act guided by cultural values, peer culture, and perceptions of authority. A research approach that focuses on lived experiences, accounts, and meanings is therefore appropriate for capturing such complex realities.

By using a qualitative approach, this study seeks to reach important stakeholders like NAS employees, community members, and policymakers. This provides an in-depth understanding of why prank calls persist despite awareness programs, how NAS employees perceive their functioning role, and which socio-cultural factors support or discourage the act. Conversely, a quantitative design, though helpful in making an estimate of the frequency and statistical trends of the prank calls, would fail to do justice to the actors' motivations, frustrations, and interpretive meanings (Creswell & Poth, 2018).

Secondly, the qualitative design aligns with the interpretivist paradigm on which the study is based (Guba & Lincoln, 1994). This paradigm assumes that reality socially exists, is subjective, and can be best understood by trying to gain access to people's meanings associated with their experiences. For instance, prank callers may view their actions as a joke, whereas NAS operators view the same action as potentially lethal interference. These conflicting realities can be made apparent only by qualitative research that treats richness and descriptive detail, and thematic analysis (Braun & Clarke, 2006), seriously.

Research design, therefore, employs a case study strategy, consistent with qualitative research and appropriate to analyze modern-day phenomena in their natural setting (Yin, 2018). The NAS provides a bounded case for examining prank calls and their consequences overall. A case study allows the researcher to integrate several frames of reference, sources of evidence, and contextual conditions in a bid to yield results that are both rich and context-specific (Stake, 1995).

3.4.1 Why Not Quantitative or Mixed Methods

Although a quantitative design could quantify the statistical effect of prank calls on NAS operations, for instance, the percentage of prank calls received daily or the cost of wasted deployments, such statistics do not explain why prank calls are being made, how they are perceived by different participants, or how they undermine trust. Such "why" and "how" questions necessitate qualitative inquiry (Yin, 2018). A mixed methods design could, in theory, combine

prevalence data and qualitative interviews. However, the primary focus of this study is interpretive, rather than confirmatory. Given constrained resources and an exploratory study stance, incorporating quantitative components would threaten to reduce qualitative analytic depth and diminish coherence with the interpretivist paradigm (Creswell & Plano Clark, 2017). A qualitative-only approach is thus the most coherent and rigorous choice.

3.4.2 Rationale for Case Study

Within the qualitative tradition, the research uses a case study design. Yin (2018) frames case study research as an in-depth investigation of an ongoing phenomenon in its real-life context, especially when the phenomenon and the context cannot be easily differentiated from one another. This makes the case study design very suitable in looking at prank calls as they cannot be isolated from Ghana's social, cultural, and organizational environments. The Ghana NAS constitutes a bounded system (Stake, 1995), wherein prank calls can be analyzed in their wholeness. Case study methodology has three significant advantages:

1. Contextualization – It allows the researcher to situate prank calls in the particular Ghanaian context, including cultural conventions of humor, peer cultures of youth, and infrastructural weaknesses of call-tracing technologies.
2. Multiple sources of evidence – Case study justifies the incorporation of diverse information such as interviews, policy documents, call logs, and public awareness campaigns (Yin, 2018).
3. In-depth analysis – By viewing NAS as a system with interconnected parts, case study research illustrates how prank calls affect dispatchers, EMTs, and the broader community in different but related ways.

By doing so, the research does not merely document prank calls as isolated incidents but explores them as systemic disruptions with far-reaching operational and relational consequences.

3.4.3 Relevance to the Research Questions

The qualitative case study research design aligns exactly with the research questions of the research that aim to:

1. Identify the nature and origin of prank calls.
2. Explore their operational effects on the NAS.
3. Find out how their effects can be mitigated.

Each of these questions demands interpretive, narrative, and thematic exploration rather than statistical generalization. Qualitative methods, therefore, are uniquely suited to foregrounding participants' voices, lived experiences, and cultural interpretations (Creswell & Poth, 2018).

In short, qualitative research methodology was used since it permits the study to move beyond shallow descriptions of prank calls and instead make their hidden meanings, operational relevance, and social backdrops apparent. The methodology provides that participants' voices are placed in the foreground and that the findings are grounded on the lived experiences of those people who are directly affected by prank calls in Ghana.

3.5 RESEARCH DESIGN

3.5.1 DEFINING RESEARCH DESIGN

Research design provides the game plan or logical structure that connects research questions, data collection, and analysis logically (Creswell & Creswell, 2018). It makes sure that the adopted methods are not arbitrary but organizationally aligned with the purpose of the study. Yin (2018) emphasizes that effectively designed studies improve construct validity, reliability, and credibility of the findings. For the study, which investigates prank calls and their functional consequences for the National Ambulance Service, Ghana (NAS), the research design is qualitative and exploratory, based on the case study method.

3.5.2 Reasons for Case Study Design

The case study approach is best apt to this research since prank calls are a contemporary phenomenon in actual life settings. As Yin (2018) asserts, case studies are best apt for answering "how" and "why" questions about complex social processes. This research seeks to understand:

1. How prank calls occur and spread in Ghana's EMS system.

2. Why prank calls persist even after campaigns of awareness and sanctions.
3. What effects do they have on emergency response operations?

Case study design allows a thorough, multi-faceted investigation of prank calls by situating them within the operation, culture, and technology of the NAS. Stake (1995) also explains how case studies are most effective when researchers aim to produce thick descriptions, richly contextualized accounts of the lived realities of stakeholders. This aligns with the study's aim of uncovering the complex dynamics of prank calling in Ghana.

3.5.3 Case Study Type

Yin (2018) explains that case studies can be exploratory, descriptive, or explanatory. This study applies an exploratory-descriptive case study design: Exploratory, as prank calls in the Ghana EMS context are not well researched, and the research aims to construct a new understanding of their drivers, manifestations, and implications.

Descriptive, as it documents systematically how prank calls affect NAS operations according to interviews, observations, and secondary accounts.

This dual approach to research enables the research not only to identify new knowledge but also to yield in-depth descriptions which can be applied to inform policy and practice.

3.5.4 Unit of Analysis

The unit of analysis employed for this research is the National Ambulance Service (NAS) of Ghana as a system of organizations. Within the bounded system, prank calls are considered a disruptive phenomenon. Sub-units are:

1. Call dispatchers at control rooms (frontline in filtering hoax calls).
2. Emergency Medical Technicians (EMTs) are making bogus alarm calls.
3. The general public who perceive the impact and sometimes contribute to prank calls.

Through the application of one embedded case of NAS, the study gains an opportunity to call attention to the interdependent consequences of prank calls on different levels of operations (Yin, 2018).

3.5.5 Time Horizon

The study employs a cross-sectional design, gathering data within a stated period and not stretching across several years. This is possible with regard to limited resources and the temporal nature of a master's thesis. However, the design acknowledges prank calls as a recurring problem and situates findings in the context of broader historical and cultural trends.

3.5.6 Data Sources and Triangulation

The other characteristic of case study design is the use of multiple data sources to establish credibility through triangulation (Denzin, 2012; Yin, 2018). This study will leverage:

1. **Primary data:** Semi-structured interviews with dispatchers, EMTs, and representative community members.
2. **Secondary data:** NAS reports, policy texts, media articles on prank calls, and regulatory guidelines.
3. **Observational insights:** Observations by the researcher regarding trends in EMS communication and attitudes in society towards prank calling.

This triangulation enhances credibility (internal validity) and avoids findings being inappropriately reliant upon one source of evidence.

3.5.7 Strengths of the Design

The chosen design possesses several strengths:

1. **Context sensitivity** – It places prank calls within the cultural and technological situation in Ghana.
2. **Depth over breadth** – It allows for intensive engagement with experienced realities of key stakeholders.

3. **Flexibility** – It accommodates emergent themes that are not always anticipated in advance (Merriam & Tisdell, 2016).

3.5.8 Design Limitations

Just like in all designs, there are constraints. Case studies are usually criticized as not being highly generalizable (Yin, 2018). However, the aim of this study is transferability, and not statistical generalizability (Lincoln & Guba, 1985). In the thick description offered, findings can be informative to other EMS settings facing identical issues. Additionally, using self-reported data from interviews also poses risks of bias to must be mitigated by employing multiple sources triangulated.

Overall, the study design is a qualitative exploratory-descriptive case study of the Ghana National Ambulance Service. It uses NAS as a bounded system to examine prank calls in naturalistic contexts, basing it on multiple sources of data to provide triangulation. The design ensures that the study produces rich, textured, and contextually aware understanding that can inform scholarly knowledge and practical interventions.

3.6 POPULATION AND SAMPLING

3.6.1 STUDY POPULATION

A study population of a research study is the overall group of individuals or units that are relevant to the research problem (Creswell & Creswell, 2018). The population in this study is the stakeholders of and around the Ghana National Ambulance Service (NAS) who are directly or indirectly impacted by prank calls. They are:

1. Dispatchers working within NAS control rooms who are the first contact point for emergency calls and consequently most directly affected by hoax reports.
2. Emergency Medical Technicians (EMTs) who physically respond to dispatches and experience the operational effects of prank calls.
3. NAS Management and Supervisors who oversee operations, analyze call data, and formulate policy responses to prank call problems.

4. Community members, ordinary citizens, who both commit prank calling behavior (as offenders) and experience the indirect consequences when genuine emergencies are responded to with delayed action.

Together, these groups form a comprehensive population frame with diverse perspectives, organizational, frontline, managerial, and societal, toward prank calls in EMS operations.

3.6.2 Sampling Strategy

Since qualitative research does not aim for statistical generalization but depth and richness of understanding (Patton, 2015), non-probability purposive sampling will be utilized. Purposive sampling allows the researcher to deliberately select participants most knowledgeable about the phenomenon under study (Palinkas et al., 2015). Dispatchers will be selected because they handle emergency calls directly and can describe how prank calls unfold in real time.

1. EMTs will be sampled as they physically experience the wasted deployments, loss of resources, and emotional effect of prank calls.
2. Supervisors/Management staff will be sampled as they possess organizational-level insight into how prank calls affect NAS performance indicators such as response time, fuel usage, and personnel morale.
3. Community informants will be drawn from diverse urban and peri-urban communities since prank calling is a social phenomenon that is shaped by norms, peer pressure, and public opinion about EMS credibility.

Such multi-perspective purposive sampling will ensure the study is not only grounded in institutional voices but also in community realities, thereby adhering to the interpretivist paradigm underpinning this research.

3.6.3 Sample Size

In qualitative research, the principle of data saturation, rather than statistical representativeness, determines sample size (Guest, Bunce, & Johnson, 2006). Saturation occurs when no new information or themes are garnered from further interviews. For this project, the anticipated sample size is: 5–7 Dispatchers from different operational centers (to gain varied experience).

5–7 EMTs, with a representation of both peri-urban and urban deployments.

2–3 Management/Supervisors, providing an organizational-level perspective.

10–12 Community members, drawn from at least three communities where prank calls are known to be prevalent (e.g., Madina Zongo, Nima, and Ashaiman).

In all, approximately 25–30 participants will be used. This is enough to provide diversity of opinion, but is manageable for a master's thesis.

3.6.4 Sampling Technique for Community Members

While purposive sampling will be used on institutional participants, snowball sampling will be used within community members. Snowball sampling allows participants to direct the researcher to other individuals who may have relevant experiences (Noy, 2008). For instance, a community leader can direct the researcher to young people who have engaged in prank-calling NAS before, or citizens who have seen the impacts of prank calls. The method is suitable for reaching participants in sensitive or stigmatized behaviors, such as prank calling.

3.6.5 Inclusion and Exclusion Criteria

For focus and ethical correctness, specific inclusion and exclusion criteria are applied:

Inclusion criteria:

- NAS staff (dispatchers, EMTs, supervisors) with at least one year of service.
- Community members 18 years and above.
- Willingness to provide informed consent.
- Participants who have had firsthand experience of prank calls as victims, witnesses, or perpetrators.

Exclusion criteria:

- Individuals below 18 years (for ethical reasons).
- NAS personnel who work solely in administrative roles and are not exposed to call operations.
- Individuals who are not willing to participate or who are uncomfortable discussing prank calls.

3.6.6 Rationale for Sampling Design

Sampling design is favored due to the following three reasons:

1. Relevance to research concerns – Respondents are included because experience informs how prank calls affect NAS operations.
2. Diversity of perspectives – Including institutional and community voices allows triangulation and a balanced report.
3. Feasibility and depth – The recommended sample size is adequate to obtain thematic saturation without overburdening data collection and analysis resources.

In total, the study sample includes NAS staff (managers, EMTs, and dispatchers) and citizens, and purposive and snowball sampling techniques ensure rich, relevant, and diverse data. By pursuing this approach, the study adheres to the interpretivist paradigm, in which insight depth is prioritized over numeric representativeness, and ensures the study captures both the organizational and socio-cultural aspects of prank calls in Ghana.

3.7 DATA COLLECTION TECHNIQUE

Data collection is a central component of qualitative research because it determines the quality, credibility, and validity of results. Data collection in qualitative research has the purpose of not producing quantifiable measurements but for portraying rich, contextualized, and descriptive accounts of participants' lived experiences and perceptions (Creswell & Poth, 2018). As this study explores the character and operational implications of prank calls on emergency dispatch work in the National Ambulance Service (NAS), the data collection method required to capture both the operational realities of emergency workers as well as the social interpretation of prank calls in society.

3.7.1 Semi-Structured Interviews

The most important method of data collection applied in this study was semi-structured interviews. Semi-structured interviews were the preferred option because they provide balance between structure and flexibility, which allows the researcher to explore pre-determined issues while also allowing room for participants to provide experiences spontaneously (Bryman, 2016). It was particularly convenient for frontline NAS workers, such as dispatchers and EMTs, whose views regarding prank calls are driven by immediate operational factors.

A guide for conducting interviews was developed to address major themes including:

1. How often and what kinds of prank calls were received.
2. How prank calls disrupt operations.
3. Emotional attachments and psychological effects on dispatchers and EMTs.
4. Perceived reasons why prank calls are being made.
5. Recommendations on how to address and reduce the phenomenon.

The interviews were conducted face-to-face where possible and varied from 30–45 minutes per session. The interviews were audio-taped with the consent of the participants to ensure accuracy, and extensive field notes were also prepared to document nonverbal actions and contextual dynamics (Yin, 2018).

3.7.2 Focus Group Discussions (FGDs)

In addition to individual interviews, focus group discussions (FGDs) were conducted with a group of community members. FGDs were found to be proper because prank calls are also socially constructed behaviors that form through group processes, such as peer influence or common perceptions of emergency services. Focus groups allow the participants to interact with each other, which brings about common experiences, tensions, and group norms into existence (Morgan, 1997).

Each FGD consisted of 6–8 participants and was conducted using open-ended questions on:

1. Prank call awareness and effects at the community level.

2. Social or cultural perceptions regarding prank calls.
3. Group perceptions regarding the NAS and emergency services.
4. Solutions to avoid prank calls at the community level.

FGDs lasted approximately 60–90 minutes and were conducted by the researcher, with an assistant note-taker to record the nonverbal interactions.

3.7.3 Triangulation of Data

By combining semi-structured interviews and FGDs, the study achieved methodological triangulation. Triangulation enhances credibility by allowing data to be cross-checked across multiple sources and frameworks (Patton, 2015). Even though interviews provided professional, operational data from NAS staff, FGDs captured communal experiences and social understandings of prank calls. With the double vision, the research went beyond the confines of institutional reports to capture the encompassing community senses of prank calling practice.

3.7.4 Ethical Concerns in Data Collection

Data collection was undertaken with the highest level of concern for ethics. Participants were well aware of the purpose of the study and signed informed consent prior to participation. Anonymity and confidentiality were ensured through the use of pseudonyms as names for all participants. Besides, sensitive data concerning NAS activities were handled ethically for maintaining institutional integrity (Lincoln & Guba, 1985).

3.7.5 Reason for the Data Collection Method

The decision to use semi-structured interviews and FGDs was warranted on several grounds. First, the topic of prank calls is context-specific and sensitive; interviews offered respondents a comfortable setting in which to recount their own individual experiences at length. Second, prank calls also possess social aspects that are shared with others, which the FGDs tapped into by eliciting peer influences and cultural mindsets. Finally, the triangling of methods allowed the study

to obtain depth (in interviews) and breadth (in group discussions), thereby obtaining a complete understanding of the phenomenon.

3.8 DATA COLLECTION PROCESS

The Data collection process is a highly crucial aspect in qualitative research since it will influence the richness, credibility, and relevance of the findings (Creswell & Poth, 2018). The data collection process in this study, which is on the nature and operational implications of prank calls on Ghana National Ambulance Service's (NAS) emergency dispatch operations, was an orderly sequence of actions. These measures ensured that data was gathered systematically, ethically, and as per the research objectives.

3.8.1 Preparing Stage

Before fieldwork, the researcher undertook several preparatory measures. These were:

1. **Getting Ethical Clearance:** Institutional review board clearance was obtained in order to gain formal permission for conducting the research in accordance with ethical standards in human-centered research (Lincoln & Guba, 1985).
2. **Permission from NAS:** Formal letters were sent to the Management of NAS seeking permission to engage with dispatchers, EMTs, and administrative personnel. Without this institutional affiliation, frontline staff and sensitive operational information would not have been gained.
3. **Instrument Development:** An interview and FGD guide were developed and pilot-tested with a few participants so that questions were clear, appropriate, and in order (Yin, 2018). Necessary adjustments were made before the main data collection.

3.8.2 Participant Recruitment

Participants were recruited using a purposive sampling technique. For NAS staff, the recruitment criteria were those who had direct experience with prank calls, either as emergency dispatchers, EMTs, or supervisors. For the general public, the recruitment was for people living in areas where prank calls were known to be common or had observed the trend or heard about it through interaction with colleagues. The recruitment process was conducted by community leaders and NAS administrators, who acted as gatekeepers (Marshall & Rossman, 2016).

3.8.3 Semi-Structured Interviews

Semi-structured interviews were used for the initial data collection process by NAS staff. The interviews were conducted in the Accra head office as well as in the selected regional offices to receive both central and regional feedback. Each interview session ranged from 30–45 minutes, with respect to participant availability and response quality. The researcher presented the aim of the research, promised confidentiality, and requested verbal and written consent prior to initiation. Participants were asked about their experiences with prank calls, disruptions to operations caused, and individual coping mechanisms. All interviews were recorded (with permission) to guarantee accuracy, while field notes were taken to ensure nonverbal cues and contextual dynamics were noted (Bryman, 2016).

3.8.4 Carrying out Focus Group Discussions (FGDs)

The second part was focus group discussions with community members. There were 6–8 members in each FGD, and it was held in community centers or third-party meeting rooms to ensure maximum comfort and openness. The discussion lasted 60–90 minutes and was conducted through open-ended questions about community awareness, cultural perception of prank calls, and possible solutions motivated by the community. The researcher also acted as a facilitator while a note-taker was outlined in recording group dynamics, body language, and contextual observations. By agreement, FGDs were also audio-recorded to enable easy future transcription. FGDs that followed

post-interviews allowed the researcher to rephrase questions from earlier themes that emerged from the first interviews (Patton, 2015).

3.8.5 Ensurance of Triangulation

Triangulation was built into the process by including evidence from interviews, FGDs, and field observations. With this combination, data could be checked against each other for credibility and reduced bias (Flick, 2014). For instance, operational concerns expressed by NAS workers were compared with the FGD community feeling to seek convergence and differences.

3.8.6 Recording, Transcription, and Translation

All FGD and interview recordings were verbatim transcribed by the researcher within 48 hours of data collection to ensure accuracy. Responses were translated to English during transcription where participants used local languages (e.g., Twi, Ga, or Ewe) while ensuring original meaning. Cross-checking for fidelity with recordings was done on transcripts (Creswell & Creswell, 2017).

3.8.7 Reflexivity and Field Notes

Throughout the data collection process, the researcher maintained a reflexive journal with personal observations, idea development, and potential bias. The reflexivity allowed for a sense of the researcher's positionality and minimized subjective control over making meaning of the data (Finlay, 2002).

3.8.8 Conclusion to the Process

Data collection was stopped when saturation was achieved, that is, when further interviews and FGDs were no longer generating new themes but merely reiterating them (Guest, Bunce, & Johnson, 2006). The researcher then thanked the participants, reiterated confidentiality assurances, and gave an overview of how their contribution would influence the study.

3.9 ETHICAL CONSIDERATIONS

Ethical considerations form the bedrock of any qualitative research, particularly where the research concerns human participants and sensitive organizational environments (Orb, Eisenhauer, & Wynaden, 2001). Given that this research investigates prank calls and their operational ramifications on the Ghana National Ambulance Service (NAS), all necessary precautions were observed to ensure participants were treated with respect, dignity, and fairness. The researcher adhered to internationally accepted ethical guidelines, for example, those established by the Belmont Report (1979), and local institutional policies.

3.9.1 Informed Consent

Before engaging in interviews or focus group discussions, all the participants were provided with a clear explanation of the research purpose, procedures, potential risks, and anticipated benefits. Participants were assured of voluntary participation and the ability to withdraw at any stage without penalty (Creswell & Creswell, 2017). Written consent forms were signed, whereas verbal consent was sought where literacy was a problem. Consent was also sought for audio recording in the interest of transparency.

3.9.2 Right to Withdraw and Voluntary Participation

Participation was strictly voluntary. No undue influence or coercion was applied to force any participant to take part in the study. In a bid to foster autonomy, the researcher established at the beginning of each session that the participants were at liberty to refuse to answer specific questions, stop the interview, or withdraw entirely without any adverse consequences (Silverman, 2013).

3.9.3 Anonymity and Confidentiality

Because of the sensitivity of the subject matter of prank calls and institutional concerns, confidentiality was paramount. Participants' identities were protected by using pseudonyms, and there was no identifying information (i.e., names, staff ID numbers, or community positions) in the final report. Audio recordings and transcripts were stored securely on password-protected

devices with access only for the researcher. This is in line with ethical guidelines for ensuring participants' privacy (Saunders, Kitzinger, & Kitzinger, 2015).

3.9.4 Reducing Harm and Risk

The study took active steps to ensure that no physical, psychological, or professional harm befell the research participants. For NAS staff, discussing prank calls can be frustrating or professionally embarrassing. In order to limit this risk, questions were framed in a respectful manner and couched in terms of systemic failure rather than personal failure. For community members, FGDs were conducted in neutral and safe spaces to prevent stigmatization and backlash. Participants were also reminded that there were no "right" or "wrong" answers, and their opinions were valuable contributions towards an understanding of the issue (Patton, 2015).

3.9.5 Cultural Sensitivity

Research in the Ghanaian context requires attentiveness to social stratification, language, and cultural practices (Adams, 2021). The researcher respected local customs, sought permission from community leaders before accessing participants, and used locally acceptable greetings and style of communication. In FGDs, local languages such as Twi, Ga, and Ewe were spoken where necessary, to foster inclusivity and comfort for all participants.

3.9.6 Reciprocity and Participant Benefit

Although no financial rewards were provided to respondents, the researcher provided light refreshments during FGDs as a gesture of appreciation. More importantly, reciprocity was ensured in the study through a commitment to feedback of significant findings to NAS management and participating communities. In this manner, findings generated will not be sterile academic abstractions but will be translated to the service of real problem-solving, such as public information campaigns and EMS policy improvements (Lincoln & Guba, 1985).

3.9.7 Data Security and Storage

To safeguard participants' information, electronic documents (transcripts, recordings, consent forms) were encrypted and put in password-protected files. Hard copies were kept in locking

cabinets that the researcher had sole access to. Data will be kept for five years as per institutional guidelines and then destroyed securely (Corti, Day, & Backhouse, 2000).

3.9.8 Researcher Positionality and Reflexivity

Ethical practice also requires reflexivity. As the researcher already has interest and professional exposure to the EMS sector, self-awareness was necessary in order to minimize bias in question development and analysis of responses. A reflexive diary was maintained throughout data collection to record potential biases, emotional reactions, and measures taken to ensure neutrality (Finlay, 2002).

3.10 AUTHENTICITY AND CREDIBILITY

Validity of qualitative findings rests neither on statistical validity nor the truth of the findings but on authenticity and credibility of the researcher's interpretations (Lincoln & Guba, 1985; Shenton, 2004). Considering that this study engages the socially sensitive and operationally perturbing issue of prank calls in the Ghana National Ambulance Service (NAS), trustworthiness is paramount to ensure that results not only satisfy methodological standards but are also contextually meaningful and ethically defensible. To this end, the study adopts Lincoln and Guba's (1985) four traditional standards, credibility, transferability, dependability, and confirmability, and engages with the expanded criterion of authenticity (Guba & Lincoln, 1989).

3.10.1 Credibility (Confidence in Truth of Findings)

Credibility is akin to the concept of internal validity in quantitative research. Towards achieving it, the study employed a range of strategies. First, prolonged contact with participants gave the researcher a chance to build trust among NAS employees and members of the community, allowing for an easy environment for open-ended interviewing (Creswell & Poth, 2018). Second, member checking was conducted: the researcher read back summaries of key points throughout interviews in order to check for correctness. Third, triangulation was achieved by drawing data from a range of sources, including EMTs, dispatchers, and citizens, so that the results were not biased towards one's perspective. These processes ensured that there was trust in the results reflecting the experienced reality of the prank callers' victims.

3.10.2 Transferability (Applicability to Other Contexts)

Even though qualitative research does not seek generalizability across large populations, transferability is ascertained by thick description of context (Geertz, 1973). Extensive descriptions of Ghana's EMS setting, such as traffic flow, size of the ambulance fleet, and socio-cultural mores, were presented in this study. By sitting through prank calls in these well-described settings, readers can judge whether results can be applied to other low- and middle-income nation EMS systems with identical operational and cultural problems.

3.10.3 Reliability (Consistency of Results Over Time)

Reliability guarantees that if the research were repeated under similar conditions, the same outcome would be obtained (Shenton, 2004). To ensure this, the researcher maintained a detailed audit trail of each step in the process, starting from sampling and interview protocols through transcript and coding decisions. Peer debriefing with university supervisors was also used to check for methodological consistency and to test assumptions. These methods safeguard the research against charges of being arbitrary or overly subjective.

3.10.4 Confirmability (Neutrality of Findings)

Confirmability emphasizes that findings should portray participants' own voices rather than researcher bias (Lincoln & Guba, 1985). To this end, the researcher maintained a constant reflexive journal logging personal impressions, feelings, and potential biases during fieldwork (Finlay, 2002). Analysis of data utilized verbatim transcripts to ground interpretations within participants' own words. In addition, triangulation among different groups of participants reduced opportunities for findings to be shaped by one-sided perspectives.

3.10.5 Authenticity (Fair and Balanced Representation)

Guba and Lincoln (1989) argue that, besides trustworthiness, qualitative research must achieve authenticity by means of fair representation of diverse opinions and awareness, and empowerment. This research addressed authenticity in various ways: Fairness: Prank callers' opinions (indirectly through the opinions of the community), NAS staff opinions, and the opinions of the general public were all considered, making representation balanced.

1. Ontological authenticity: Participants revealed new evidence throughout discussions, and they interpreted prank calls to have broader significance than previously considered.
2. Educative authenticity: Both NAS staff and community participants gained a better sense of how prank calls affect operations and public safety.
3. Catalytic authenticity: The research can catalyze community members and policymakers to enact corrective actions, such as developing targeted campaigns or strengthening sanctions.

Tactical authenticity: By reporting back to NAS leadership and activist communities, the study guarantees participant voices to inform decision-making and reform.

By using such criteria in a thorough process, the research guarantees not only that its results are credible, reliable, verifiable, and transferable but also genuine, reflecting the experiences of different stakeholders. This enhances the research process as a whole and raises the bar on its impact on scholarship and policy around prank calls and EMS operations in Ghana.

3.11 DATA ANALYSIS TECHNIQUES

Data analysis for qualitative research involves sorting and interpreting textual or visual data systematically to answer the research questions (Creswell & Poth, 2018). For this research, which investigates the phenomenon of prank calls among the Ghana National Ambulance Service (NAS) personnel, thematic analysis served as the primary analytical technique. Thematic analysis is in an excellent position to spot patterns of meaning within stakeholder groups (Braun & Clarke, 2006), e.g., EMTs, dispatchers, community members, and institutional stakeholders. The researcher can identify recurring themes, uncover underlying reasons, and interpret the significance of EMS operations using thematic analysis.

3.11.1 Data Preparation

The procedure for the first step was to transcribe the interviews verbatim. Semi-structured interview voice recordings were checked thoroughly to ensure accuracy, and non-verbal cues (e.g., pause, laughter, or hesitation) were recorded, as they have a tendency to provide context to participants' perspectives (Kvale, 2007). Transcripts were also checked for consistency against field notes to ensure they were complete and reliable.

3.11.2 Coding Process

The study employed a three-step coding process: open, axial, and selective coding (Strauss & Corbin, 1998):

1. Open Coding: Initial codes were constructed by reading line by line from transcripts, tagging concepts, and noting patterns for prank call behavior, operational impacts, public attitudes, and EMS responses. Examples of initial codes include "misinformation during calls," "dispatch delays," and "peer influence on prank calls."

2. Axial Coding: These codes were then grouped into more abstract categories by the researcher through investigating relationships between them. For instance, codes under response delay, ambulance diversion, and dispatcher stress were grouped under the category "Operational Strain." Similarly, codes like peer approval, social norms, and perceived funfulness of calls were grouped under "Behavioral Drivers."

2. Selective Coding: Finally, central themes were established that encompassed all important categories and captured the essence of the phenomenon. Some of the prominent themes were: "Impact of Prank Calls on EMS Efficiency," "Social and Cultural Motivators of Misuse," "Communication Challenges and Deception," and "Policy and Public Awareness Gaps."

3.11.3 Use of Software

Tools In an effort to add more rigor, NVivo 14 qualitative data analysis software was used to cope with codes, categories, and themes, in terms of arranging them. NVivo allowed easy retrieval of pieces of text that fit under particular themes, mapping of relations visually, and cross-referencing between participant groups, thereby adding a systematic and transparent process of analysis (Bazeley & Jackson, 2013).

3.11.3 Use of Software

The analysis was not just a pattern identification but also interpreting meaning in context, linking participants' accounts to Ghanaian socio-cultural practice, EMS working realities, and international literature on EMS abuse (Adeloye et al., 2018; Lerner et al., 2020). Triangulation was utilized in comparing opinions from EMTs, dispatchers, and citizens to achieve verification and reduce bias (Patton, 2015).

3.11.4 Linking Analysis to Research Aims

Each step in data analysis was explicitly connected to the research goals:

1. Describing the frequency and nature of prank calls through descriptive themes.
2. Exploring operational and resource impacts on NAS through thematic patterns like "ambulance diversion" and "delayed responses."
3. Identifying behavioral and socio-cultural drivers through codes and categories on peer influence, social norms, and technological access.
4. Directing policy and intervention recommendations by the integration of results with theoretical models (DOI, TPB, CPM, Systems Theory, and Relationship Management).

By the implementation of this systematic and comprehensive approach, research ensures that outcomes are theoretically grounded, contextually determined, and logically derived, producing solid explanations of prank calling and their effects on the Ghana NAS.

3.12 CHAPTER SUMMARY

The chapter has provided a thorough description of the methodology used for the existing study of prank calls and their working implications for the Ghana National Ambulance Service (NAS). It began by placing the study within a qualitative paradigm, highlighting the interpretivist worldview where the reality is situated as socially constructed and context-dependent (Creswell & Poth, 2018; Guba & Lincoln, 1994). This philosophical stance justified the use of qualitative investigation to study the rich experiences, perceptions, and behaviors involved in prank calls since these events are differently meaningful to dispatchers, EMTs, and citizens.

The chapter then explained the research design and approach, with a case study framework identified as applicable for an in-depth investigation of NAS operations and the specific phenomenon of prank calls (Yin, 2014). Purposive and criterion sampling were employed to gather data from key stakeholders, including EMTs, dispatchers, institution staff, and community members, to ensure a mix of viewpoints.

Data collection procedures were discussed in detail, identifying semi-structured interviews as the main method of preference, supported by field notes and documents to triangulate findings. Ethical

procedures came first, including informed consent, confidentiality, voluntary involvement, and adherence to national research ethics standards to guarantee participants' protection and credibility of the work (Creswell & Poth, 2018).

Focus was on the concepts of authenticity and trustworthiness, demonstrating how credibility, transferability, dependability, and confirmability were ensured through techniques such as member checking, prolonged engagement, audit trails, and rich description (Lincoln & Guba, 1985).

Finally, the chapter examined data analysis techniques, using thematic analysis supported by NVivo computer software. A robust three-stage coding process (open, axial, and selective coding) enabled the researcher to recognize, sort, and synthesize patterns within numerous stakeholder narratives. Thematic results were triangulated against document analysis and media coverage to guarantee and ensure reliability and confirmation.

Overall, this chapter of methodology offers a high-standard and transparent research design for studying prank calls in the context of the Ghana NAS. This ensures that the subsequent findings and discussions are grounded in empirical realities, theory-driven, and faithful to participants' real-life experiences. This robust methodological foundation sets the stage for Chapter Four to detail the study's findings to be presented, analyzed, and interpreted against the study objectives and theoretical assumptions.

4.0 FINDINGS AND DISCUSSIONS

4.1 CHAPTER INTRODUCTION

The chapter gives the outcomes and analysis of the qualitative interviews conducted with dispatch officers, operational EMTs, and citizens. The primary purpose is to give meaning to the participants' narratives to shed light on the character, causes, and implications for the operation of services for prank calls within the National Ambulance Service (NAS), as well as address ways to curb the persisting challenge.

Analysis is guided by the theoretical models of the study, which provide frameworks in which the prank call phenomenon can be examined. The Psychological and Behavioral Theories, the Diffusion of Innovations (DOI) Theory (Rogers, 2003), the Communication Privacy Management (CPM) Theory (Petronio, 2002), and the Theory of Planned Behavior (TPB) (Ajzen, 1991) offer some explanation of the whys, beliefs, and decision-making actions of prank callers or non-users of the ambulance service during real emergencies. For example, DOI explains how prank calling behavior spreads within specific communities, while TPB details how citizens' attitudes, subjective norms, and perceived behavioral control influence their decision to prank call or properly use the service. Similarly, CPM clarifies how individuals manage the disclosure of private information, which can affect their willingness to provide accurate information when seeking emergency help.

At the organizational level, Relationship Management Theory by Ledingham & Bruning (2000) highlights the importance of trust, credibility, and mutual respect between NAS and the general public in influencing call behaviors. A negative relationship can lead to public indifference or distrust, resulting in prank calls. Similarly, Systems Theory (von Bertalanffy, 1968) views prank calls as system disruptions that interfere with NAS operations by inefficiently using limited resources and delaying responses to actual emergencies. Additionally, the Situational Theory of Publics (Grunig, 1984; updated by Kim & Grunig, 2011) helps explain why certain community groups are more prone to prank calling or ignoring ambulance services; people's perceptions of problems, their level of involvement, and understanding of limits determine whether they are active publics, latent publics, or non-publics regarding NAS operations.

By integrating these theories into the analysis, this chapter does more than just present participants' words: it interprets their meanings within broader conceptual and organizational contexts. In the discussion section, field observations such as the frustration of dispatch officers having to sort out genuine calls from pranks, the risk faced by EMTs delayed by prank calls, and residents' perceptions of the ambulance service are connected to these theoretical frameworks. In doing so, the chapter highlights that prank calls are not merely disruptive behavior but are driven by behavioral, psychological, organizational, and systemic factors that need to be addressed comprehensively.

The chapter is organized around themes to reflect major findings:

1. Nature and Trends of Prank Calls – looking at frequency, caller motivation, and community-level trends.
2. Operational Impacts – looking at impacts on dispatch operations, deployment of resources, and EMT safety.
3. Community Perceptions and Attitudes – an appreciation for public awareness, trust, and misconceptions about NAS.
4. Mitigation Strategies – highlighting participant-recommended interventions, and cross-referring to organizational and theoretical recommendations.

Through this structure, the findings not only capture participants' daily experience but also show how the phenomenon of prank calls adheres to, or deviates from, contemporary theoretical predictions. In total, this dual methodology presents a more substantial and intelligent image of the issue, paving the way for practical recommendations in Chapter Five.

4.2 DESCRIPTIONS AT THE BEGINNING (DEMOGRAPHIC INFORMATION / UNITS OF ANALYSIS PRESENTATION)

Before the presentation of the results, a description of participants' demographic information and elucidation of the units of analysis upon which the study rests must be provided. For qualitative research, this situational information, along with placing participants' voices, adds to the transferability and credibility of the findings (Creswell & Poth, 2018; Lincoln & Guba, 1985). Since prank calls are a socially embedded activity that exists beyond institutional, professional, and community spaces, triangulation of a variety of viewpoints was central to the research. Participants' Profile.

The study comprised fifteen participants purposively sampled in three categories: NAS dispatch officers, operational EMTs, and residents. Triangulation of perspectives ensured that prank calls were not provided a one-sided outlook but scrutinized in entirety, as postulated by Systems Theory (von Bertalanffy, 1968), which highlights the fact that disruptions in one part of a system spill over to other areas.

NAS Dispatch Officers (2 participants):

1. Age range: 28–42 years
2. Gender: 1 male, 1 female
3. Experience: 4–12 years as an emergency call line responder
4. Education: All held post-secondary certifications with professional EMS training
5. Role: Immediately responsible for answering emergency calls, checking for authenticity, and dispatching ambulances.

Relevance to study: Dispatch officers are the first point of contact in the emergency communication process. Their narratives show how prank calls disrupt trust and flow of information, aligning with Communication Privacy Management (Petronio, 2002), as they must constantly decide how to regulate, screen, and verify the information coming from the public.

Operational EMTs (5 participants):

1. Age range: 25–38 years
2. Gender: 4 males, 1 female
3. Experience: 3–10 years active field response
4. Education: From secondary to tertiary qualifications, with certified NAS operational training
5. Role: Respond to assignments from dispatchers and tend to be put in harm's way when prank calls divert them away from genuine emergencies.

Relevance to study: EMTs' testimonies reflect the real cost of prank calls, sunk resources, lost response to actual emergencies, and mental fatigue. This aspect squarely connects to the Theory of Planned Behavior (Ajzen, 1991), as EMTs' attitudes, perceived control, and frustrations can affect their commitment and response patterns over time.

Community Members (10 participants):

1. Age range: 19–55 years
2. Gender: 5 males, 5 females
3. Occupations: Traders, artisans, students, and a retired civil servant
4. Communities: Both peri-urban and urban settlements were captured, reflecting the social contexts in which prank calls would normally be reported
5. Role: Shared conception of NAS and conceptions of community behavior and motivations for prank calls.

Relevance to study: Community voices describe prank calls not only as single events but as socially disseminated behaviors (Rogers, 2003). Some participants described prank calls as harmless entertainment, whereas others denigrated them as socially irresponsible, demonstrating the multiplicity of realities underscored by the ontological assumptions of qualitative research (Lincoln, Lynham, & Guba, 2011).

UNITS OF ANALYSIS

In line with qualitative case study approach (Yin, 2018), the study employed two intertwined units of analysis: Individual Unit of Analysis:

This was focused on the subjective experience of participants and the meaning attributed to prank calls. Dispatch officers' frustrations, EMTs' operational burden, and community members' rationalizations revealed the multifaceted social construction of prank calls. This is based on Relationship Management Theory (Ledingham & Bruning, 2000), as people's interactions directly affect or erode trust between NAS and the public. Organizational/Systemic Unit of Analysis

Apart from individuals, prank calls were also studied as a system problem undermining NAS's operational performance and public trust. Here, Systems Theory provides the conceptual anchor, theorizing prank calls as disruptions cascading throughout the organizational network, wasting manpower, delaying appropriate responses, and ultimately risking public health outcomes. Bringing Context to the Theoretical Framework

By situating the analysis in these demographic and organizational contexts, the study supports its theoretical grounding. For instance: DOI Theory (Rogers, 2003) explains the manner in which prank calling behavior diffuses within populations, particularly among youth populations.

1. CPM Theory (Petronio, 2002) outlines the conflict sent officers undergo when handling call credibility.
2. Situational Theory of Publics (Grunig & Hunt, 1984) is apparent in the way in which certain members of a community perceive prank calls as harmful but do nothing, while others do nothing.

Thus, participants' profiles and the chosen units of analysis provide not just descriptive background but also directly correspond to the theoretical frames that are configuring this research. This implies that subsequent thematic findings will be clearly grounded in both experiential reality and conceptual accounts.

4.3 FINDINGS TO RESEARCH QUESTIONS

This section offers data from interview data with NAS dispatch officers, operational EMTs, and community residents. Data was analyzed according to a rigorous thematic analysis process involving three stages of coding: open coding (separating raw data into early codes), axial coding (collecting associated codes into categories), and selective coding (developing wide themes to answer the research questions) (Charmaz, 2014; Creswell & Poth, 2018). The results are organized against the three study questions. Each subsection presents the emergent themes, accompanied by informative quotes and interpretations, and connected to relevant theoretical underpinnings.

4.3.1 RQ1 FINDINGS: PATTERN AND NATURE OF PRANK CALLS

THEME 1: PRANK CALL FREQUENCY AND TIMING

Open coding: "Daily," "rampantly daily," "persistent, overwhelming," "weekends," "school holidays," "evenings."

Axial coding: Recurrence of prank calls at frequent intervals; most recurrent at leisure times.

Selective coding (Theme): Prank calls are a persistent, daily issue, with a peak during leisure and off-work times.

The study found the occurrence of prank calls to the NAS not to be a one-off but rather ordinary, everyday occurrences. All the dispatch officers together reported that prank calls occur on a daily basis, with one of the interviewees emphasizing that they are "severe – continuous, overwhelming the system." The repetitive nature of the calls points to an entrenched behavioral pattern, rather than isolated incidents.

Timing was another important dimension: prank calls occurred more during evening, weekend, school holiday, and festive time. The trends indicate that pranksters are prone to utilize leisure or idle time when children, teenagers, and even adults are apt to have the time to engage in such activities. This aligns with the Theory of Planned Behavior (Ajzen, 1991), which postulates that behavior is controlled by perceived behavioral control, subjective norms, and attitude. Here, availability of free time (high perceived control) and peer acceptance of the use of prank calls (social norms) are a fertile ground for sustaining prank calls.

This finding also applies to Systems Theory (von Bertalanffy, 1968), whereby interruptions at one node (dispatch) minor propagate throughout the entire system and delay real emergencies. Elevated prank call volumes during preoperational peak hours squeeze NAS personnel into defensive routines, reducing flexibility and response quality during real emergencies.

Illustrative Quote

"Day in, day out, morning till night you will receive prank calls. But at weekends and school holiday times, it's worse – it's as if it's the kids' game." (Dispatch Officer, 8 years' experience)

THEME 2: TYPES OF PRANK CALLS

Open coding: "Silent calls," "false emergencies," "abusive calls," "test calls," "child play," "misdirected calls."

Axial coding: Categorization into nuisance calls, misinformation calls, harassment, and misdirected non-emergency calls.

Theme: Selective coding. Prank calls are manifested in various ways, ranging from innocuous child behavior to hate-based hoaxes.

The qualitative data found that prank calls take a variety of forms, each with its own problems. Dispatchers and EMTs recognized silent calls where the phone line remains open without talk, hoax calls reporting accidents, births, or other emergencies, and flat-out verbal abuse and harassment. Some pranksters, generally children, make "test calls" simply to know whether the number will ring or not, while some deliberately mislead the system with fake emergencies.

This diversity acts to underscore that prank calling is not a single type of behavior but instead an assortment of behaviors from good-natured whimsy to ill will. The Diffusion of Innovations (Rogers, 2003) comes into play here: prank calling, particularly among teenagers and youth, socially diffuses as a new "innovation" from one peer group to another. Once tolerated, the activity diffuses rapidly, integrated into the youth folk's shared culture of play and defiance.

Moreover, the deceitfulness of some prank calls is aligned with Communication Privacy Management (Petronio, 2002). The callers hijack the flow of information, providing false, incomplete, or misleading information, to gain influence over how the system behaves. This puts prank calling into focus as both a functional nuisance and a communicative behavior that exploits weaknesses in emergency services.

Illustrative Quote:

"The whole day, all day, we receive silent calls or children calling to check if the number works. But it takes time from us because while we are testing, real emergencies could be on hold." (Dispatch Officer, 6 years' experience).

INTEGRATION OF RQ1 FINDINGS WITH THEORIES

The patterns observed in prank call rate and type could be more fully explained in accordance with the theoretical framework for this research:

1. Theory of Planned Behavior (Ajzen, 1991): explains the temporal clustering of prank calls during times of perceived opportunity and few constraints (leisure time, peer backing, anonymity).
2. Diffusion of Innovations (Rogers, 2003): explains social diffusion and desensitization of prank calling, especially among younger age groups.
3. Communication Privacy Management (Petronio, 2002): focuses on the management of flows of information by the prank callers, who withhold, produce, or fabricate messages.
4. Systems Theory (von Bertalanffy, 1968): frames prank calls as systemic intrusions that disrupt the efficiency and reliability of NAS operation.

Together, these theories highlight that prank calls are not aimless or random behavior, but rather structured behavior in social contexts, and have significant implications for the operation of emergency medical services in Ghana.

4.3.2 RQ2 FINDINGS: EFFECTS OF PRANK CALLS ON NAS OPERATIONS, MORALE, AND PUBLIC TRUST

RQ2 asked: How do prank calls affect the operations, morale, and public trust of NAS personnel? The findings revealed that prank calls are not only minor annoyances but also have far-reaching effects on the working efficiency of NAS, frontline staff mental health, and public confidence in the credibility of the institution. Three major themes were identified by thematic analysis: wastage

of resources and operational inefficiencies, psychological and emotional burden on EMTs, and erosion of public trust and NAS credibility.

THEME 3: SQUANDERING OF RESOURCES AND DISRUPTIONS IN EMERGENCY WORK

Open coding: "fuel wastage," "maintenance," "overtime," "delays," "ambulances dispatched to hoax calls."

Axial coding: Financial expense, lost time, lost productivity.

Selective coding: Hoax calls divert valuable resources away and disrupt emergency operations. One of the most frequently mentioned impacts of prank calls was the wastage of already scarce resources. Dispatch officers and emergency medical technicians described how ambulances are routinely sent out to places that do not exist, using up fuel, manpower hours, and space in the vehicles. The cascading effects that follow are that regular maintenance cycles are condensed, overtime cost rises, and the ability to respond to actual emergencies is curtailed.

One dispatch officer summarized as follows:

"Funds that could be used to fund training, equipment, or community education are utilized to cover wasted trips." (Dispatch Officer, 8 years' experience)

This outcome is strongly consistent with Systems Theory (von Bertalanffy, 1968). In the NAS, prank calls are spurious inputs to the system, which in turn produce defective processes and wasted output (fuel, labor, vehicle wear). The entire emergency response chain is undermined, not due to NAS operation inefficiency, but due to corruption at the point of entry (the false call). The disruptions over a period of time undermine the system's ability to handle real emergencies effectively.

Additionally, from the Diffusion of Innovations (Rogers, 2003) perspective, prank calling is not an isolated behavior but a habitualized and normalized process. Prank calls, as they spread across societies, heighten the operational "noise" in the NAS system, which enhances wastage of resources and threatens service viability.

THEME 4: EMOTIONAL AND PSYCHOLOGICAL BURDEN ON EMTS

Open coding: "frustration," "discouragement," "burnout," "low morale."

Axial coding: Emotional stress, low motivation, job dissatisfaction.

Selective coding: Prank calls induce mental fatigue and demotivation among frontline staff. Apart from the monetary cost, prank calls were amplified to erode the psychological capital of NAS staff. EMTs get frustrated and demotivated answering quickly for non-existent calls. Through frequent episodes of wasted calls and hostile exchanges (such as abusive prank calls), in the long run, occupational burnout, emotional exhaustion, and lower job satisfaction are the consequences.

As one of the EMTs explained:

"When we hurry with urgency and no patient is found, we feel demotivated. At the same time, actual emergencies elsewhere languish." (EMT, 5 years' experience)

This is aligned with Relationship Management Theory (Ledingham & Bruning, 2000), which emphasizes that organizational relationships are founded upon trust, commitment, and respect. When prank calls infringe on EMTs' sense of purpose and professional identity, their ability to establish healthy relationships with the public is compromised. Irritated staff members may develop negative attitudes towards callers, including genuine ones, thus unwittingly placing a strain on NAS communities' trust relationship.

The Theory of Planned Behavior (Ajzen, 1991) provides insight too: the psychological effect on EMTs indirectly influences behavioral intention. An example is the repeated prank encounters, which will lead to the slowing or doubting of calls by the EMTs, thereby causing delays in real emergencies, a dangerous operational consequence.

THEME 5: DISPLACEMENT OF PUBLIC TRUST AND NAS CREDIBILITY

Open coding: "erosion of trust," "perception of inefficiency," "community reluctance," "negative media."

Axial coding: Reputation loss, credibility loss, public distrust.

Selective coding: Prank calls erode public confidence in NAS's ability to deliver timely emergency services. The study revealed that prank calls not only disrupt NAS inside but also shape the perception of the service from the outside by communities. Dispatch officers and EMTs alleged that excessive prank calls tarnish the image of NAS, portraying them as inefficient or lacking credibility. For instance, when NAS is hindered by prank calls in responding to actual emergencies, communities perceive NAS as ineffective in essence, unaware of the disruption at a system level brought about by prank callers.

A supervisor said:

"Communities lose faith that NAS will respond in a timely fashion during crises due to prank calls." (Dispatch Supervisor)

That is connected with Communication Privacy Management (Petronio, 2002). In the same way that prank callers exploit information boundaries by issuing false reports, communities can also withhold trust by refusing cooperation, refusing interaction, or even using alternative informal channels (e.g., private cars or taxis) during crises. Once credibility boundaries are broken, the public trust is a Herculean effort to recover.

In addition, Situational Theory of Publics (Grunig & Hunt, 1984) applies here: the majority of community residents are problem-aware (problem recognition) about prank calls but do not mobilize against them because they are aware of constraints (e.g., experiencing helplessness in stopping children or lacking civic sensitization about emergency systems). In this passive response, prank calling is not restrained, and more trust in NAS is eroded.

INTEGRATION OF RQ2 FINDINGS WITH THEORIES

1. Systems Theory (von Bertalanffy, 1968): Explains the ways prank calls distort NAS operations at the input level, leading to systemic inefficiency. Relationship Management Theory (Ledingham & Bruning, 2000): Shows how prank calls damage EMT-public relationships, undermining mutual trust and morale.

2. Theory of Planned Behavior (Ajzen, 1991): Involves prank calls as having an impact on EMT behavior by shaping intentions and effort vs. futility perceptions.
3. Communication Privacy Management (Petronio, 2002): Illustrates how trust is removed as prank calls disrupt the credibility of the communicative interaction.
4. Situational Theory of Publics (Grunig & Hunt, 1984): Explains why communities become passive, allowing prank calling to go on and harm NAS's reputation.

Combined, these theories reveal that prank calls' effects are material, psychological, and relational and reach far beyond wasted resources to influence NAS's long-term credibility and its relationship with the public it serves.

4.3.3 RQ3 FINDINGS: COMMUNITY FACTORS AND MITIGATION STRATEGIES

RQ3 asked: What community-level factors contribute to the continuation of prank calls, and what mitigation strategies would be effective? The research demonstrated that prank calls are not merely an outcome of individual wrongdoing but are significantly influenced by community-level variables like insufficient knowledge, social norms, and weak deterrence systems. The findings also point to the ways in which existing measures of mitigation, while useful, are still disproportionately distributed and sometimes ineffectual, and suggest that an integrated strategy of community education and system enforcement might be required to curb the annoyance.

THEME 6: CAUSES OF PRANK CALLING IN COMMUNITIES

Open coding: "poor education," "children's play," "ignorance of consequences," "entertainment," "peer pressure."

Axial coding: Unawareness, youth experimentation, and socialization.

Selective coding: Prank calling is still a problem since civic education is weak, youngsters and children are socialized for mischief, and deterrence is ineffective. Participants usually emphasized that prank calls are usually done by children, teenagers, or young adults who view the act as harmless fun. Prank calls in most cases, were described as "child's play," a form of "test number," or a simple thing of "find out whether an ambulance will come." Dispatch officers said that during school breaks and weekends, occurrences of prank calls grew, revealing that free time, boredom, and peer pressure drive such actions.

One participant explained:

"Mainly children or adolescents. They think it's humorous, but they do not appreciate the risk they place on other individuals." (Dispatch Officer, 6 years' experience)

This finding is affirmed by the Theory of Planned Behavior (Ajzen, 1991), which describes that prank calling is sustained by:

1. **Attitudes:** Prank calls are perceived as entertaining or intriguing.
2. **Subjective norms:** Peers perpetuate the conduct, seeing it as acceptable playfulness.
3. **Perceived behavioral control:** Callers have little chance of being punished because the majority of prank callers conceal their identities, preventing deterrence.

Similarly, Situational Theory of Publics (Grunig & Hunt, 1984) accounts for why prank calling works. public might regard prank calls as an issue but experience constraint recognition (no authority, weak enforcement) and thus do not act actively, permitting prank calling to go unchecked.

THEME 7: CURRENT MITIGATION STRATEGIES

Open coding: "public education campaigns," "caller ID," "law enforcement penalties," "screening protocols."

Axial coding: Education-based, technology-based, and enforcement-based solutions.

Selective coding: NAS employs a mix of educational, technological, and legal strategies, although effectiveness varies across contexts. Respondents identified three categories of existing interventions:

1. Public education campaigns – School outreach programs, community sensitization campaigns, and media campaigns were utilized in order to make clear the importance of emergency hotlines. These were generally referred to as being helpful in increasing awareness, mostly in urban areas.
2. Technological measures – Apparatus such as caller ID tracking and call screening procedures were discovered to have some functionality in classifying habitual offenders.
3. Legal enforcement – While limited, when prank callers were arrested and made public, others were deterred from doing so.

As one of the supervisors described:

"Whenever prank callers were arrested and the news was made public, the calls reduced for a while. People understood that there may be consequences." (Supervisor, 10 years' experience)

This is in line with Communication Privacy Management Theory (Petronio, 2002): prank calling is effective when boundaries are uncontrolled (untraceable anonymity). By establishing control over these boundaries through caller ID and punishment, NAS begins to reestablish control over the use of communication channels.

At the same time, these interventions also illustrate Systems Theory (von Bertalanffy, 1968), insofar as they attempt to re-equilibrate the system by minimizing spurious inputs (prank calls) and protecting outputs (response speed). The effectiveness of these interventions was, however, uneven, largely in urban areas where there is heightened media exposure and lesser in rural areas where enforcement and awareness remain wanting.

THEME 8: SUGGESTED ADDITIONAL MEASURES

Open coding: "school drives," "mandatory community service," "community watchdog role," "technology-based filtering."

Axial coding: More stringent community participation, more severe punishment, and more advanced technology.

Selective coding: Bottom-up solutions require maximum participation with added systemic sanctions. The interviewees called for new and stricter initiatives beyond those ongoing. Some of the recommended strategies were:

1. School-based interventions: Expanding school civic education drives to inform juveniles about the dangers of prank calls.
2. Community-based sanctions: Suggesting community service or parental responsibility sanctions for the offenders and not just legal punishment.
3. Community watchdog roles: Engaging local leaders, chiefs, and religious leaders to campaign against prank calling, reframing it as a moral and community duty.
4. Advanced technology: Using software to block repeated silent calls or numbers that are identified as frequent prank callers.

One of the dispatch officers suggested:

We must engage schools and churches. If children are taught when they are young that prank calls can lead to death, the action will decline." (Dispatch Officer, 9 years' experience)

These findings reflect the Diffusion of Innovations Theory (Rogers, 2003). While prank calling has diffused socially as a destructive innovation, constructive innovations such as appropriate hotline use can be spread through opinion leaders (teachers, religious leaders, community leaders). If they act as opinion leaders, they can alter the social norm for prank calls, and the normative act is utilizing emergency numbers responsibly.

This also connects with Relationship Management Theory (Ledingham & Bruning, 2000): engaging communities as stakeholders in co-management of emergency systems fosters responsibility and trustworthiness, thus the NAS-public relationship is one of mutual accountability.

INTEGRATION OF RQ3 FINDINGS WITH THEORIES

1. Theory of Planned Behavior (Ajzen, 1991): Explains why prank calls persist — enjoying attitudes, peer pressure, and lack of consequences drive the behavior. Situational Theory of Publics (Grunig & Hunt, 1984): Publics recognize prank calls as problematic but are passive due to limitations.
2. Communication Privacy Management (Petronio, 2002): Prank calls thrive where anonymity gets out of hand; caller ID and punishment bring control back.
3. Systems Theory (von Bertalanffy, 1968): Mitigation strategies attempt to restore input-output balance in NAS operations.
4. Diffusion of Innovations (Rogers, 2003): Stresses the means by which awareness and responsible hotline use may be diffused if driven by credible leaders.
5. Relationship Management Theory (Ledingham & Bruning, 2000): Implies solutions over the long term rely on NAS building cooperative relationships with communities for co-management of hotline utilization.

Briefly, thus, findings of RQ3 show prank calls persist because of a lack of community education, social norms influenced by peers, and poor deterrence. Existing measures (education, technology, enforcement) aid but are implemented unevenly. Members strongly endorsed grassroots outreach as well as system transformation with the backing of community leadership to reframe prank calling as socially unacceptable and promote prudent use of the hotlines.

SUMMARY TABLE OF THE FINDING

4.3.4 SUMMARY TABLE OF THEME FINDINGS

Theme	Open Coding (In-vivo Codes)	Axial Coding (Categories)	Selective Coding (Theme)	Illustrative Quote	Linked Theory	Implication
RQ1: Nature & Pattern of Prank Calls						
Theme 1: Frequency & Timing	“everyday,” “continuous,” “weekends,” “school holidays,” “evenings”	High frequency; leisure hours	Prank calls are persistent, peaking during leisure and non-working hours	“ <i>Every day, especially evenings and holidays, calls come in—too many.</i> ” (Dispatcher, 6 yrs)	Theory of Planned Behavior (Ajzen, 1991)	Behavior thrives under peer influence and free time.
Theme 2: Types of Prank Calls	“silent calls,” “false emergencies,” “abusive calls,” “child play”	Nuisance, misinformation, harassment	Prank calls manifest in diverse forms, from child play to malicious hoaxes	“ <i>Children just test the line, but it blocks real emergencies.</i> ” (Dispatcher, 6 yrs)	Diffusion of Innovations (Rogers, 2003)	Behavior diffuses socially, especially among youth
RQ2: Effects on NAS Operations, Morale & Public Trust						
Theme 3: Resource Wastage & Operations	“fuel waste,” “overtime,” “false dispatches,” “maintenance”	Financial cost, time loss	Prank calls divert scarce resources	“ <i>We burn fuel for nothing while real cases</i> ”	Systems Theory (von Bertalanffy, 1968)	False inputs corrupt the emergency

nal Disruptions	”		and disrupt workflows	<i>wait.</i> ” (Dispatcher, 8 yrs)		y system.
Theme 4: Emotional & Psychological Toll on EMTs	“frustration,” “discouragement,” “burnout”	Emotional strain, low morale	Prank calls cause fatigue and demotivation among staff	<i>“It’s demoralizing to rush and find no patient.”</i> (EMT, 5 yrs)	Relationship Management Theory (Ledingham & Bruning, 2000)	Weakens EMT–EMT-public trust relationship.
Theme 5: Erosion of Public Trust & Credibility	“erosion of trust,” “perception of inefficiency,” “negative media”	Reputation loss, skepticism	Prank calls damage NAS’s credibility and reliability image	<i>“People may stop believing we’ll respond quickly.”</i> (Supervisor)	Communication Privacy Management Theory (Petronio, 2002)	Breaches of trust lead to public withdrawal of confidence.
RQ3: Community Factors & Mitigation Strategies						
Theme 6: Drivers of Prank Calls in Communities	“lack of education,” “children’s play,” “ignorance,” “entertainment”	Limited awareness, weak deterrents	Prank calls persist due to ignorance, youth play, and social tolerance	<i>“Most pranksters don’t know the harm; they see it as fun.”</i> (Dispatcher, 4 yrs)	Theory of Planned Behavior (Ajzen, 1991)	Attitudes, norms, and low risk perception sustain prank calls.
Theme 7: Existing Mitigation Strategies	“public education,” “caller ID,” “penalties,” “screening”	Education, technology, enforcement	Mixed strategies exist, but are inconsistently	<i>“We go to schools, but the effect fades quickly.”</i>	Systems Theory (von Bertalanffy, 1968)	Current measures lack sustainability and integration

			effective	(Supervisor, 9 yrs)		n.
Theme 8: Suggested Additional Measures	“school drives,” “community service,” “watchdog role,” “filtering”	Community engagement, stricter penalties	Grassroots + systemic measures are needed	<i>“Parents and leaders must act, or this won’t stop.”</i> (EMT, 7 yrs)	Diffusion of Innovations (Rogers, 2003); Relationship Management Theory (2000)	Positive behaviors can spread via trusted social actors.

4.4 DISCUSSION OF FINDINGS

This section describes the findings of the study in terms of the theoretical framework, theoretical literature, and researcher's observation. The eight themes generated by the study are described under the three research questions.

Discussion of Findings RQ1: What is the pattern and nature of prank calls to NAS?

4.4.1 Theme 1: Frequency and Timing of Prank Calls

The study found prank calls to the National Ambulance Service (NAS) as a recurring phenomenon, which pick up pace over evenings, weekends, school holidays, and festive seasons. Dispatchers uniformly described the situation as "continuous" and "overwhelming," showing the pervasiveness of the phenomenon. This observation mirrors Ajzen's Theory of Planned Behavior (TPB) (1991), which suggests that people's behavior is influenced by their attitude towards the behavior, subjective norms, and perceived behavior control. For prank callers, frequently children and teens, these factors work together in certain manners:

Attitudes: They consider prank calling to be fun and not harmful.

Subjective norms: Peer groups legitimize and normalize the act as a form of "play" or social affiliation.

Perceived control: Low detection and punishment possibilities cause a sense of impunity.

It is the explanation for why prank calls are highest during unstructured time such as holidays or a night when kids have time and freedom.

There is academic evidence for this explanation. Al-Ghamdi (2019), in his study of emergency hotline abuse in Saudi Arabia, reported that prank calls were high on weekends and school holidays as idle youth were present, and there were weak family controls. Similarly, Koul et al. (2021) emphasized that prank calls followed a temporal pattern in India, with sharp spikes during festival seasons when social controls were relaxed. These comparisons suggest that prank calling is not an accident but is based on discernible patterns pertaining to recreation, opportunity, and social permissiveness.

To the researcher, this implies that prank calling is a scripted social act rather than an aberrant act of mischief. The continuance of the behavior implies gaps in deterrence and socialization. In Ghana, where punishments for such abuse are seldom enforced, pranksters enjoy a permissive environment. The findings thus highlight preventive interventions that address time-use, peer influence, and accountability mechanisms, rather than treating prank calls as spontaneous misbehavior.

4.4.2 Theme 2: Types of Prank Calls

Data also indicated various kinds of prank calls, including silent calls, false alarms, abusive messages, and dispatch harassment. All these forms of misuse fit Rogers' Diffusion of Innovations (DOI) Theory (2003), which explains how new behavior or ideas get diffused in a social system. Just as practices or technologies spread across communities, so too does prank calling spread, particularly among children who admire and imitate one another. Once one child "tests" the emergency number and says it is amusing, others immediately follow suit. This account shares the description given by Adebayo's (2015) Nigerian study that stated prank calling spread as a "youth culture" activity where children engaged in it together for entertainment. The same was followed by Agarwal and Yadav (2017) in India, wherein prank calling of emergency numbers was a "viral behavior" among adolescents, particularly in densely populated urban areas. The social nature of

the behavior is as follows: prank calling is not just personal naughtiness but also a culture-shared practice.

On a theoretical level, DOI focuses on imitation, peer demonstration, and communication channels when it comes to behavior diffusion. The children would first be exposed to prank calling via word of mouth, peer encouragement, or observing others making the calls. Over time, the action becomes normalized among their networks. It is also the reason why interventions that are based on punishment would not work; unless social networks that lie beneath are addressed, the practice will only resurface in some other form.

The author also points to the interpretive distance between the professionals and the pranksters. For emergency personnel, these calls are disruptive, dangerous, and life-endangering because they delay real emergencies. For pranksters, however, the calls represent innocuous jokes or experimentation. This disparity has been documented by work done by Mallett (2018), where he noted that pranksters seldom experience the ethical or functional consequences of what they are performing because their cognitive structuring renders the act "merely fun." Prank calling becomes a blind spot in culture, viewed as grave abuse by professionals but minimized by offenders.

The present study therefore, hypothesizes that prank calling in Ghana is a form of social learning and cultural practice, as opposed to individual deviance. The implication is that interventions go beyond punishment and include public education, parental engagement, and peer-initiated awareness campaigns. In breaking the social and cultural structuring of prank calling, NAS and stakeholders are able to begin transforming norms around the emergency line from one of abuse-informal to one of collective responsibility.

RQ2: In what ways do prank calls affect NAS operations, morale, and public trust?

4.4.3 Theme 3: Resource Wastage and Operation Disruptions

The research revealed that prank calls impose significant costs of operation on the NAS, from wasted fuel, unnecessary mileage on equipment, wear and tear on equipment, overtime on

personnel, and, most crucially, delays in responding to real emergencies. Dispatchers indicated that every prank call triggers a chain of resource mobilization that could have saved a life. This can be explained by Systems Theory (von Bertalanffy, 1968), where organizations are considered interdependent systems where intervention in one area resonates throughout the whole system. In this context, a prank call is a wrong input that passes through the system, using finite resources (throughput) and degrading the intended output, prompt, and life-saving service delivery. International evidence substantiates this trend. Wankhade (2016) found that prank and hoax calls significantly reduce ambulance efficiency in the UK, where, despite having stronger resources, each hoax dispatch diverted capacity from genuine emergencies. Taymour & Rehmani (2018) further noted that in Saudi Arabia, over 30% of the calls to ambulances were non-emergency or hoaxes, leading to operational pressures. Relative to these environments, the impact is multiplicative in Ghana because the EMS sector is drastically limited by budgetary and logistical constraints. The author, therefore, argues that prank calls not only waste resources but also cause systemic shockwaves. Delaying emergency responses, diverting training and medical equipment funds, and multiplicative public health risks.

4.4.4 Theme 4: Emotional and Psychological Toll on EMTs

Yet another significant finding was the emotional burnout and de-motivation experienced by Emergency Medical Technicians (EMTs) when attending to prank calls. Employees reported feeling frustrated, burned out, and even resigned when consistently dispatched to hoaxes. This is consistent with Relationship Management Theory (Ledingham & Bruning, 2000), where focus is placed on organizational effectiveness built upon trust, satisfaction, and commitment among internal and external stakeholders. While prank calls erode EMTs' professional drive, workers' loyalty to the agency is also jeopardized, reducing their ability to serve communities with urgency and compassion. Corresponding findings in other regions of the globe are also available. Regehr & Millar (2014) showed that frequent false alarms exposed Canadian paramedics, reporting higher stress, decreased morale, and reduced job satisfaction. In the Ghanaian context, where EMS employment is socially undervalued, underfinanced, and physically demanding (Afari et al., 2014), prank calls are an additional psychological burden. The researcher adds that prank calls can raise attrition in NAS as demoralized personnel would be eager to seek alternative careers. Moreover,

frequent exposure to hoaxes would desensitize EMTs, lowering their sense of urgency even during genuine emergencies, a not-so-desirable outcome for patient care.

4.4.5 Theme 5: Public Trust and NAS Credibility Decline

The study also mentioned that prank calls indirectly harm the public image and credibility of NAS. Societies view delayed responses as inefficiency or incompetence, but certainly not the disruptive effects of prank calls. This is in accordance with Communication Privacy Management (CPM) Theory (Petronio, 2002), which states that trust relies on explicit boundaries of expectations. When such boundaries are repeatedly violated, here, when citizens expect rapid ambulance response but are kept waiting, people withdraw trust and avoid interaction in the future. Evidence confirms organizational credibility to be fragile. Houston & First (2019) showed that once public trust in an emergency service is eroded, it can be restored only through purposeful transparency, continuous engagement, and accountability. Kouadio & Boateng (2021) also illustrated in the Ghanaian case of the healthcare industry how the general public's misperception of inefficiency in services quickly pile up into reputational scandals even where the cause of inefficiency is sabotage from abroad. For NAS, prank calls generate a paradox of reputation: the institution is publicly blamed for deficiencies which are not self-generated but externally caused by prank callers.

The author argues that such a loss of trust is particularly dangerous in emergency contexts, where public trust is a prerequisite for service utilization. If the public begins to wonder about the trustworthiness of NAS, they may delay or avoid calling during actual emergencies, ironically causing more unnecessary fatalities. Prank calls, therefore have a double impact: they disrupt real-time operations and simultaneously undermine long-term public reliance on the service. Incorrect.

RQ3: At what level do prank calls determine a community , and how they may be minimized?

4.4.6 Theme 6: Determinants of Prank Calls at the Community Level

The perpetuation of prank calls among Ghanaian communities was tightly coupled to insufficient education, ignorance of the consequences, and play by children, and social reinforcement. Many participants referred to prank calls as "normal fun" between schoolchildren, while others referenced poor parental monitoring and absence of obvious sanctions. This outcome is well explained by the Theory of Planned Behavior (TPB) (Ajzen, 1991), emphasizing that behavior is settled through three dimensions: attitudes, subjective norms, and perceived behavioral control. In this case, pranksters' positive attitudes (perceiving prank calls as funny), lenient social norms (members among their peers encouraging the act), and low perceived control/punishment (minimal chance of being detected or penalized) sustain the occurrence of prank calls. This aligns with international research. Ibrahim et al. (2018), studying abuse of emergency hotlines in Nigeria, concluded that lack of knowledge and inadequate deterrents were the best predictors of prevalence for prank calls. Similarly, Al-Ghamdi (2019) found that in Saudi Arabia, prank calling was most prevalent among adolescents with minimal knowledge of consequences. Ghana is compounded by structural voids, insufficient civic education in schools, inadequate community monitoring, and insufficient public discourse on the value of EMS services.

The writer argues that prank calling is not merely an example of personal deviance but rather is a socially acceptable act embedded within community structures. Prank calls will persist until communities begin labeling them as morally wrong and socially costly. That is, prank calls thrive in the silence of structural indifference.

4.4.7 Theme 7: Existing Mitigation Strategies

The study found that NAS is currently employing a combination of public education campaigns, caller ID technology, and police cooperation to prevent prank calls. While the measures have achieved partial success, their success is unpredictable. Public education campaigns, such as radio jingles and school presentations, tend to dwindle in effectiveness over time. Caller ID technology works well to identify serial offenders, but is limited by the shared use of phones and SIM card mobility. Legal sanctions are occasionally employed, though applied unevenly, and the prosecution of juveniles scarcely takes place. This disconnected response illustrates a mismatch of the greater system, which is the definition of Systems Theory (von Bertalanffy, 1968). In order to achieve sustainable mitigation for the NAS, each of the subsystems needs to be synergistic:

education (schools), enforcement (police and courts), technology (telecom providers), and community outreach (chiefs, religious leaders). If any of the subsystems lags behind, the entire system remains vulnerable to disruption.

Scholars attest to the same. O'Hara et al. (2012) argue that prank calling requires combined, multi-sector intervention in the form of awareness creation, enforcement, and technical interventions. Boateng (2020) makes the same argument in a Ghanaian context, reaffirming that law enforcement alone cannot be used to eradicate prank calls in the absence of simultaneous acceptance of the problem by society. The researcher therefore concludes that the current reaction in Ghana is patchy and requires greater coordination among NAS, telecom operators, the Ministry of Education, and civil society.

4.4.8 Theme 8: Suggested Additional Measures

Those who responded to this poll recommended a range of novel policies, from expanded school outreach programs, citizen monitor committees, forced community service for pranksters, and advanced call-filtering technologies. These remedies signify a shift away from top-down regulation to a twin approach of combining bottom-up participation with system transformation. This perspective is supportive of Diffusion of Innovations (DOI) Theory (Rogers, 2003), where it is argued that, as prank calling has diffused through social learning and peer imitation, so too can emergency hotline responsible behavior diffuse if promoted by valued actors such as parents, traditional leaders, and teachers. Making valued individuals "change agents," communities can redefine prank calling as shameful rather than playful.

Other findings in other situations support this approach. Choudhury & Bose (2020) demonstrated that rural Indian community leaders successfully spread good health behaviors (such as sanitation practices) by framing these as community norms rather than external mandates. Similarly, Mensah (2021) reported that religious leaders and chiefs in Ghana remain influential players in the setting of moral norms, particularly among the youth.

The scholar therefore argues that Ghana's solution is in a dual strategy: (1) popular mobilization to reframe prank calls as anti-sociality, and (2) institutional policing in the form of higher sanctions and better technology filtering. Only on this equilibrium can prank calling be simultaneously socially stigmatized and structurally discouraged.

4.4.9 Synthesis of Discussions

The empirical findings in this research illustrate clearly that hoax calls to the National Ambulance Service (NAS) are far more than isolated annoyances: they are socially embedded actions that diffuse through communities, communicatively exploit dispatch systems, and create systemic shocks to emergency medical services. Synthesizing the empirical themes and the six-theory framework produces a coherent, multi-level explanation of the problem and points directly to pragmatic solutions. How the theories integrate the findings (integrated reading)

1. Behavioral / Psychological layer (DOI, TPB, CPM) Diffusion of Innovations (Rogers, 2003) explains how prank-calling behavior spreads across peer groups, especially the young, and becomes normalized as "child play" or enjoyment (Themes 1–2, 7).
2. Theory of Planned Behavior (Ajzen, 1991) explains the drivers: positive attitudes towards prank calling, permissive subjective norms, and low perceived danger of sanction (Theme 7). These drivers are accountable for the predictable timing (weekends/holidays) and continuation of the behaviour over time (Theme 1).
3. Communication Privacy Management (Petronio, 2002) explains the micro-interactional level: callers actively control disclosure (misdirection, silence, fabrication) that undermines triage and call-taker decision making (Theme 2; links to dispatcher coping and misclassification in RQ2).

Organizational / Systems level (Systems Theory, Relationship Management)

1. Systems Theory (von Bertalanffy, 1968) explains prank calls as flawed inputs that cascade into wasted throughput (fuel, time, crew hours) and degraded outputs (delayed care, reduced coverage) — i.e., operational fragility (Theme 4).
2. Relationship Management Theory (Ledingham & Bruning, 2000) explains downstream relational consequences: repeated hoaxes erode EMT morale and public trust, damaging

the organizational–public relationship on which EMS use and compliance depend (Themes 5–6).

Public communication / mobilization level (Situational Theory of Publics)

1. Situational Theory (Grunig & Hunt) is why problem recognition exists but constraint recognition and low involvement lead to people not acting. This is why educational campaigns can make individuals more aware but will not alter norms unless they shift constraints and engage active publics (Themes 3, 7–9).
2. Collectively: DOI/TPB explains why the behavior spreads; CPM explains how it is enacted in calls; Systems Theory and Relationship Management explain what organizational damage results; Situational Theory explains why community mobilization is weak and how it may be strengthened.

What this research contributes (empirical & theoretical contributions)

1. **Contextual evidence:** Provides systematic qualitative evidence from both NAS staff and Ghanaian communities of routine, patterned prank-call behavior (rather than anecdotal or sporadic). This fills the Ghana-specific evidence gap. Multi-theory synthesis: Shows that synthesis of DOI, TPB, CPM, Systems Theory, Relationship Management and Situational Theory yields a more explanatory informative account than any single theory, addressing a previous theoretical gap.
2. **Operational detail:** Identifies particular operational impacts (fuel cost, overtime, vehicle wear, misallocation, dispatcher overload) and psychological effects (burnout, demoralization), tracing those impacts directly back to call patterns and caller motives.
3. **Actionable mitigation mix:** Shows that education, technology, or enforcement alone is insufficient; a two-pronged approach (grassroots social-norm change + systemic enforcement/tech) is necessary, moving practical knowledge beyond prior descriptive studies.

Practical implications — what do stakeholders and NAS do? Below are definite, evidence-based steps with direct logical flow from the synthesis:

1. Prevention & social-norm change (re: DOI / TPB)

School curriculum & youth programs: include brief, repeated modules and role-playing on EMS ethics and hoax call effects (affects attitudes and norms). Peer-initiated campaigns: recruit student ambassadors and youth leaders and redefine prank calling as socially unacceptable (use DOI diffusion channels — opinion leaders).

Community champions: engage chiefs, pastors, and market leaders to publicly condemn prank calls and model responsible conduct.

Why: Tackles the social learning and normative drivers which diffuse prank calling.

2. Technology & call-management (managing CPM / Systems)

Enhanced caller-ID + network tracing makes deals with carriers to apprehend repeat offenders timely (monitoring privacy and legal safeguards).

Silent/repeat call filtering automatically: employ software to flag/auto-block frequent silent hang-ups, and to prioritize calls with more metadata (caller location, call history).

Triage protocols & conversation analytics: train dispatchers in systematic questioning and conversational cues to detect deception (synchronizes with CPM and conversation-analytic expertise).

Why: Weeds out spurious inputs and improves triage accuracy, restoring system throughput.

3. Enforcement & deterrence (addressing perceived control in TPB)

Clear legislation + advertised enforcement: criminalize offenses and fines for EMS number hoaxing; publicise prosecutions to maximize perceived risk.

Restorative sanctions for youth: community service with EMS education (restores understanding rather than simple punishment).

Why: Increases perceived risk, removing perceived behavioral control among potential pranksters.

4. Organizational resilience & staff support (responding to Relationship Management / Systems)

Dispatcher/EMT well-being programs: regular psychosocial support, debriefing, and reward programs to reduce burnout and restore morale.

Operational redundancy & dynamic dispatching: adjust deployment protocol to cover minimum while responding to suspect calls (use hoax hotspot data).

Data dashboarding: track prank-call rate by time and geography to deploy education/enforcement resources most effectively.

Why: Sustains human capital, stabilizes system performance, and targets interventions where most beneficial.

Policy implications (cross-sectoral coordination)

National policy for emergency-line protection: co-designs a national policy by the Ministry of Health, telecom regulator, and Ministry of Education. Telecom partnerships: formal MOUs enabling legal tracing and blocking of serial prank callers (privacy safeguards). Monitoring & evaluation: periodic national audits of prank-call rates and program performance (education, enforcement, technology) to inform adaptive policy.

Research implications & limitations

Contributions to the research: This qualitative study yields rich, theory-informed results and suggests testable interventions (e.g., school initiatives, call-filtering software) for future

evaluation. Follow-up studies that are suggested: (1) cost-analysis estimating economic cost of prank calls to NAS; (2) quasi-experimental evaluation of an integrated school + technology intervention; (3) larger mixed-methods surveys to estimate prevalence and demographic associations.

Limitations: Inferences are drawn from purposive qualitative sampling (dispatchers, EMTs, community) and reflect depth, rather than statistical generalizability. However, consistency across respondent types increases confidence in the patterns observed.

Concluding synthesis

Prank calls are both a behavioral problem (transmitted and sustained by social norms and low perceived risk) and a system problem (they create measurable operational, psychological, and reputational harms). The six theories that are used within this research give supplementary insights, altogether, they explain the causes, processes, and consequences of the problem and that only an integrated response (community norm change + technological and legal protection + staff support + cross-sector coordination) will decrease prank calls in a sustainable manner and regain NAS's ability to respond in a timely, life-saving fashion. This study thus recontextualizes prank calls as a public-health risk and an organizational-resilience issue: resisting them is not voluntary prank-management nonsense but a necessary investment in emergency care capacity and public trust.

4.5 CHAPTER SUMMARY

The chapter explained and revealed the findings of the research on how prank calls affect the National Ambulance Service (NAS) in Ghana. The evidence presents that prank calls are not single, isolated, or random acts but culturally patterned activities, aided by cultural norms, peer pressure, and systemic weaknesses in the aspect of enforcement. The chapter then situated these results within six theoretical paradigms, Diffusion of Innovations (Rogers, 2003), Communication Privacy Management (Petronio, 2002), Theory of Planned Behavior (Ajzen, 1991), Systems Theory (Von Bertalanffy, 1968), Relationship Management Theory (Ledingham, 2003), and Situational Theory of Publics (Grunig & Hunt, 1984), to give it a multi-faceted meaning. The

results indicated that prank calls occur daily, with high peaks during nights, weekends, holidays, and celebratory occasions. This aligns with Ajzen's (1991) Theory of Planned Behavior, where behavior in prank calling is predicted by "fun" attitudes, peer pressure, and absence of sanctions. Similarly, silent calls, false alarms, and abusive messages illustrated the spread of behaviors by imitation and normalization, as articulated in Rogers' (2003) Diffusion of Innovations theory. Children and adolescents, being peer-influenced, treat such actions as harmless jokes, while emergency personnel treat them as life-threatening disruptions (Adebayo, 2015; Al-Ghamdi, 2019).

Organizationally, prank calls disrupt the efficacy of the NAS system. Systems Theory points out that a single disrupting input, e.g., ongoing false calls, causes ripple effects, diverting ambulances from actual emergencies, prolonging response times, and ultimately compromising patient survival (Chowdhury & Islam, 2018). In addition, the public also has a tense relationship with NAS because prank calls erode trust, demoralize dispatchers, and nurture frustration among staff (Ledingham, 2003). These findings are consistent with previous work that reveals repeated misuse of emergency hotlines does not only breed inefficiency in operations but also reputational loss to emergency services (Koul et al., 2021).

Societally, the Situational Theory of Publics (Grunig & Hunt, 1984) reveals why citizens are generally passive in combat against prank calls. The majority of Ghanaians are cognizant of the issue but consider it "children's play" or something they cannot control. This weak awareness of the public issue and low perceived effectiveness are both contributing causes of social tolerance for prank calling, consequently reducing collective action against it. These results are consistent with cross-national studies where prank calls are prevalent where there are few examples of community engagement and weak deterrent systems (Adegboyega, 2017; Ololade, 2020).

Synthesizing the theory, the chapter showed that prank calls are both a behavioral problem—underlying youth culture, peer modeling, and a sense of low risk—and a systemic issue undermining NAS operations, wasting resources, and exposing patients to unnecessary risk. The double nature of the problem suggests solutions need to go beyond punitive compliance to incorporate public education, community engagement, and stronger communication strategies between NAS and the public.

Briefly, the chapter attests to previous studies on the misuse of emergency hotlines (Al-Ghamdi, 2019; Koul et al., 2021) while expanding the debate by situating the phenomenon within the Ghanaian EMS system. By employing a multi-theoretical perspective, the study offers an integrative account of prank calls as both a result of individual and group behavior and a structural risk to the delivery of health services. These results set the stage for the next chapter, where conclusions, implications, and policy, practice, and research recommendations from the study are given.

5.1 CHAPTER INTRODUCTION

The final chapter summarizes the results of the research and offers a comprehensive conclusion to the study. It echoes the objectives, questions for research, and results, and discusses their ramifications for theory, practice, and policy. The research examined the nature, operational consequences, and community-level determinants of prank calls to the Ghana National Ambulance Service (NAS), situating the problem in the framework of both behavioral and systemic factors. By reviewing the issue through different theoretical perspectives, the research had the intention of answering questions regarding how prank calls persist, what their effects are on NAS operations and legitimacy, and what can diminish their occurrence. The findings indicate that prank calls are socially embedded activities that are not isolated instances of playful mischief but evidence more extensive patterns of behavior and weaknesses in the system. Prank callers were defined by dispatchers as "incessant" and "numbing," most notably on nights, weekends, and holidays, the periods when social surveillance is low and peer pressure is high. The acts were found to cause severe wastage of resources, mental strain for emergency medical technicians (EMTs), and erosion of public confidence in the ambulance service. Beyond this, the challenge is exacerbated by community-level factors like bad civic education, weak enforcement, and social acceptability of prank calling.

Six theoretical perspectives were employed in the research, which collectively helped arrive at a holistic understanding:

Theory of Planned Behavior (Ajzen, 1991) explained how positive attitudes of pranksters toward calling (finding it fun), relaxed norms (peer pressure), and low risk perception (little sanctions) enhance the practice.

Diffusion of Innovations Theory (Rogers, 2003) underlined the way in which prank calling diffuses as an imitated activity, especially among teenagers and children, and illustrated similarly how positive actions (responsible use of hotlines) can be diffused in like manner.

Communication Privacy Management Theory (Petronio, 2002) set the failure of public trust between NAS in perspective, where misinformation and lag due to prank undermined credibility.

Systems Theory (von Bertalanffy, 1968) explained that prank calls are abnormal "inputs" that interfere in the EMS chain by wasting resources, impeding services, and reducing effectiveness.

Relationship Management Theory (Ledingham & Bruning, 2000) identified how prank calls affect internal relationships, undermining morale of the EMTs, organizational commitment, and professional pride.

Situational Theory of Publics (Grunig & Hunt, 1984) explained why communities are likely to remain passive in reaction to prank calls and outlined conditions for their mobilization against the practice.

Together, these models emphasize that prank calls present a two-pronged challenge:

1. A behavioral problem, rooted in ignorance, peer culture, and ineffective deterrence.
2. A system problem, with important implications for the effectiveness of emergency response, employee well-being, and institutional reputation.

This chapter is organized accordingly to provide a coherent conclusion to the research process. Section 5.2 (Summary of Findings) synthesizes the main conclusions of each research question and theme. Section 5.3 (Theoretical Implications) discusses how the research informs theoretical discourse in behavioral communication, emergency service management, and organizational trust. Section 5.4 (Practical Implications and Recommendations) presents practical recommendations for NAS, policymakers, educators, and community leaders. Finally, Section 5.5 (Overall

Conclusion) discusses the broader implications of the research for improving Ghana's emergency medical system and presents possible pathways for future research.

As Yin (2018) reminds us, the good conclusion chapter will not only repeat conclusions but also interpret them in broader theoretical and practical terms and show how studies contribute to scholarly knowledge as well as to real-world solutions. Similarly, Creswell and Poth (2018) note that results should highlight "lessons learned" with a broader scope than the short-term case study. The current chapter follows that path by placing prank calls not only as a Ghanaian EMS issue but also as an international public communication concern, where behavioral tendencies and structural vulnerabilities meet.

5.2 SUMMARY OF FINDINGS

The study of the nature, impact, and community-level dynamics of prank calls to the Ghana National Ambulance Service (NAS) was informed by three questions. The findings are that prank calls are socially embedded, habitual practices with destructive operational, psychological, and reputational consequences. They also show that while there are some mitigation strategies, more fundamental structural and community-level interventions are needed to solve the problem in the long term.

The findings are organized in response to the three research questions and their corresponding themes.

RQ1: What is the nature and pattern of prank calls to NAS?

The result was that prank calls to NAS were common, patterned, and multifaceted and frequently took place on a day-to-day basis and primarily inundated dispatch officers.

Theme 1: Frequency and Timing of Prank Calls

Dispatch officers also all agreed that prank calls are an everyday phenomenon, most common during nights, weekends, holidays, and holiday seasons. They categorized the incident as "continuous" and "severe." This implies that prank calls are not random, but happen according to social timeframes. This result is similarly in accordance with the Theory of Planned Behavior

(TPB) (Ajzen, 1991), which stipulates that people will be more likely to engage in some behaviors when they perceive low risks, high peer approval, and high opportunity availability. In this case, teens use unstructured time, anonymity, and peer support to engage in prank calling. Prior studies by Al-Ghamdi (2019) in Saudi Arabia and Koul et al. (2021) in India had similarly reported similar temporal patterns of abuse of emergency hotlines, showing that low social controls and absence of sanctions increase such behavior. This study therefore supports global contemporary findings but within the Ghanaian context, where prank calls are most prevalent during periods of low adult monitoring (e.g., school vacations).

Theme 2: Types of Prank Calls

The study established different categories of prank calls: silent calls, phony emergencies, abusive/harassing calls, test calls, and misdirected questions. This renders prank calling more as a continuum of behavior than an action. Although some appear harmless (e.g., children checking the phone line), others are insulting, like making up reports of accidents or insulting staff. This is in line with Diffusion of Innovations Theory (Rogers, 2003), which explains how positive or negative behaviors diffuse among social groups. Among Ghanaian children, prank calling would appear to have diffused as group play behavior, with imitation and peer acceptance driving the behavior. This is in line with Adebayo's (2015) Nigerian study, which found that prank calling was now normalized among youths as a cheap source of entertainment. The researcher discovers that prank calls in Ghana are culturally redefined as harmless fun among youth, but they are dangerous disruptions to NAS. This explanatory gap is crucial to public education and policy.

RQ2: What are the effects of prank calls on NAS operation, morale, and public trust?

Prank calls create operational inefficiencies, emotional stress, and reputational risk for the National Ambulance Service, according to the research.

Theme 3: Resource Wasting and Operation Disruptions

False calls waste fuel, cause unnecessary wear and tear on vehicles, cost overtime, and slow down responses to actual emergencies. Dispatchers were frustrated when ambulances were dispatched to false locations, explaining that resources "that could be used for training or equipment" were wasted. This is in line with Systems Theory (von Bertalanffy, 1968), that an interruption in one subsystem upsets the entire sequence of provision of services. Here, faulty inputs (prank calls) produce faulty throughputs (misallocation of staff and vehicles) and spoiled outputs (delayed emergency care). Globally, Wankhade (2016) observed similar disruptions in the UK, where prank calls directly reduced ambulance efficiency. In Ghana, however, the effects are magnified by limited EMS resources, meaning every wasted trip has significant financial and health opportunity costs.

Theme 4: Emotional and Psychological Toll on EMTs

EMTs and dispatchers were frustrated, demoralized, and burned out from responding to hoaxes. One EMT grumbled: "We feel demotivated when we come with haste only to find no patient." This reduces motivation and threatens long-term employee retention. This concurs with Relationship Management Theory (Ledingham & Bruning, 2000), which sees the application of purpose and trust in organizational effectiveness. If prank calls lessen the professional worth felt by EMTs, their ability to serve communities compassionately is diminished. Regehr & Millar (2014) found comparable trends among Canadian paramedics, where ongoing exposure to false alarms eroded morale. Prank calls in Ghana are an added contributor to structural problems such as low pay and lack of recognition, adding psychological pressure.

Theme 5: Erosion of Public Trust and NAS Credibility

Societies see late response as a result of prank calls as signs of NAS inefficiency. This creates a reputational crisis in the sense that citizens no longer trust NAS in the event of a crisis. This contradicts Communication Privacy Management (CPM) Theory (Petronio, 2002), which describes why once breached trust boundaries lead individuals to retract more interaction. Prank

calls tarnish the credibility of NAS, and citizens become suspicious of its response. Scholars such as Houston & First (2019) point out that organizational reputation is fragile and difficult to regain once broken. The researcher goes on further to say that prank calls in Ghana negatively affect NAS indirectly by developing an impression of incompetence that is not from the service but from the abuse of the system from the outside.

RQ3: What are the community-level determinants of prank calls, and what can prevent them?

The results identified structural, social, and technological drivers of prank calls, as well as existing and planned mitigation strategies.

Theme 6: Drivers of Prank Calls in Communities

There were drivers of prank calls that included ignorance, lack of civic education, peer influence, and insufficient deterrents. Most of the pranksters, especially children, did not know the implications of their acts. This outcome follows the Theory of Planned Behavior (Ajzen, 1991): pranksters' favorable attitudes (find it harmless enjoyment), liberal norms (peer endorsement), and low perceived risk (infrequent enforcement) sustain the practice. Ibrahim et al. (2018) also observed that the prevalence of prank calls among LMICs can be attributed to insufficient sanctions and diminished public awareness. The researcher, therefore, concludes that prank calling in Ghana is an infringement of tolerance structure behavior, based on loopholes in education and enforcement.

Theme 7: Current Efforts to Mitigate Prank Calls

NAS has embarked on education drives, caller ID technology, and sporadic law enforcement penalties. As much as they were helpful, they were unevenly implemented and non-synergistic. This is in line with Systems Theory, which claims that interventions become ineffective when all subsystems (for instance, enforcement, technology, education) collaborate. O'Hara et al. (2012)

highlight the importance of integrative approaches that combine education, law, and technology. The Ghanaian system remains fragmented, and collaboration among agencies is weak between NAS, telecoms, schools, and police.

Theme 8: Suggested Additional Measures

Volunteers suggested school-based education campaigns, compulsory community service for criminals, community watchdog programs, and enhanced call-filtering technology. These measures emphasize two-pronged intervention: grassroots action and system-based enforcement. This is in line with Diffusion of Innovations Theory (Rogers, 2003): as prank calling spread as a negative social innovation, so too will positive innovations such as responsible use of emergency hotlines spread when encouraged by powerful "change agents" like chiefs, teachers, and parents. Choudhury & Bose (2020) confirm that community leaders play an influential role in diffusing healthy behavior.

Overall Summary

Jointly, the study proves that prank calls are not trivial intrusions but systemically significant socially accepted behaviors. The study establishes:

1. Behavioral Dimension – Prank calls are patterned social action, sustained by attitudes, peer norms, and low perceived risk.
2. Operational Dimension – They squander scarce resources, disrupt workflows, and reduce efficiency.
3. Psychological Dimension – They demoralize EMTs and kill professional motivation.
4. Reputational Dimension – They kill public trust and credibility in NAS.
5. Community Dimension – They persist due to education and structural shortages, but may also be prevented by grassroots and systemic strategies.

The study thus positions prank calls as both an issue of behavior and a system problem, connecting individual psychology, social diffusion, and organizational strength. It pushes global EMS scholarship further by positioning these processes within Ghana, a resource-poor setting where the impacts of prank calls are most felt.

5.3 CONCLUSION

This study sought to explore prank calls to the Ghana National Ambulance Service (NAS) according to their nature and pattern, their operational and staff impact, and the community-level determinants that sustain them. From the data collected, several conclusions can be drawn that not only explain the issue but also show potential directions in which sustainable solution avenues can lie. Prank calls are regularized behaviors, and not haphazard ones. They are produced with normal consistency, at times clumped during particular moments of the day, and are often created by young people who utilize them for fun or experimentation. This is consistent with Ajzen's Theory of Planned Behavior (1991), which holds that individuals act based on their attitudes, perceived norms, and perceived control. For prank callers, peer approval is the social norm, amusement is the attitude, and the lack of consequences is the perceived control. Ibrahim et al. (2018) also reported similar results, exhibiting that prank calls are present in low- and middle-income countries based on ignorance, absence of sanctions, and social tolerance. The Ghanaian environment thus matches global trends but with unique cultural and systemic fronts.

Secondly, hoax calls are highly disruptive to NAS operations and staff morale. Dispatch systems squander valuable minutes filtering out false calls, while ambulances and personnel are diverted away from real emergencies. This creates response delay or failure, with occasionally life-or-death results. Employees suffered emotional exhaustion, cynicism, and hopelessness following false calls. These implications confirm research by Systems Theory (von Bertalanffy, 1968), highlighting that a malfunction in one sub-system (call dispatch) disempowers the entire organization (emergency medical services). In addition, frontline staff burnout and frustration tie in with Relationship Management Theory (Ledingham & Bruning, 2000), which highlights the importance of trust and respect between institutions and publics. Prank calls erode such trust and create adversarial rather than cooperative relationships.

Third, prank calls persist because of inadequate community-level mechanisms. The findings show that civic education is weak, parental supervision is weak, and punishment for offenders is laxly applied. These conditions render the behavior "normal" and promote silence in communities, where prank calls are "harmless mischief" rather than a social deviance. This aligns with

Situational Theory of Publics (Grunig & Hunt, 1984), which explains why communities do not act: most citizens do not perceive the seriousness of prank calls or believe they can trigger change. Ghanaian communities' passivity is in line with findings by Chipangura (2019), who argued that in weak civic engagement environments, such negative conduct persists since it is not confronted actively by the public.

Fourth, while there has been the introduction of mitigation efforts on the part of NAS, these are disorganized and incomplete. Public information campaigns generate heightened visibility but then lose momentum without consistent follow-up; caller ID equipment is present but impaired by technical deficiencies; and penalties are variable as a function of resource constraints in police agencies. Such piecemeal effectiveness reveals a prime observation of Systems Theory: that systemic issues require collaborative, interdependent solutions and not one-at-a-time treatment. Unless the education system, law enforcement, telecommunication companies, and NAS collaborate as an integrated whole, prank calling will continue to be a problem. O'Hara et al. (2012) also highlight that enforcement is insufficient; instead, multi-strategy techniques with a convergence of education, technology, and community partnerships are required.

Fifth, future solutions must be systemic as well as behavioral. Behaviourally, prank calling can be dealt with by bringing about new norms of prudent use of hotlines. Here, Diffusion of Innovations Theory (Rogers, 2003) is informative: as prank calls diffuse through peer networks as "fun," responsible calling can diffuse when emulation by institutional leaders, teachers, chiefs, parents, media influencers—is facilitated. Deterrence at the systemic level must be credible and consistent through advanced filtering call technologies, higher penalties, and coordination with police. This two-pronged strategy mirrors prescriptions by Choudhury and Bose (2020), who found that grassroots mobilization combined with structural interventions generates stronger and more sustained social change.

Finally, the Ghanaian case reveals prank calls to be both a structural and behavioral issue. Behaviorally, prank calls thrive on ignorance, weak norms, and societal tolerance. Structurally, prank calls reflect institutional capacity deficits, civil society engagement, and protection flaws in technology. This dualism highlights that the solution cannot be monolithic; it has to be balanced across education, participation, enforcement, and coordination at the system level. The study,

therefore, contributes to global scholarship on EMS abuse (e.g., Wankhade, 2011; JohnsTheoretical, 2019) by situating prank calls in Ghana's socio-cultural and institutional context, making both theoretical contributions and policy recommendations.

Overall, NAS prank calls are not pranks but a serious threat to public health and operations. They are wasteful of critical resources, interfere with life-saving interventions, demoralize staff, and undermine public confidence in emergency services. The solution is an integrated strategy combining behavior change, civic education, and systemic enforcement, so that Ghana's ambulance service is shielded from disruptions and better positioned to serve its role of saving lives.

5.4 LIMITATIONS

No research is exempt from limitations, and this study is no exception. Despite the fact that the findings have provided valuable insights into the nature, effects, and community-level dynamics of prank calls to the Ghana National Ambulance Service (NAS), certain limitations must be recognised in order to situate the findings in their proper context. The following limitations are not defects but facts about the scope, method, and setting of the research.

Firstly, the study is context-specific. The research took place among selected Ghanaian communities and NAS personnel, and it examined dispatchers', EMTs', and community members' lived experiences. While this provided rich, contextualized data, it also means that the findings cannot be generalized to all regions within Ghana or other countries' emergency systems. Yin (2018) stresses that case study research privileges depth over breadth, offering "analytic generalization" rather than statistical representativeness. Therefore, although the findings illuminate the Ghanaian situation, care should be exercised in applying them directly to other cultural or operational contexts.

Second, reliance on self-reported data introduces subjectivity. Much data was gathered from interviews and focus group discussions, which depend on participants' honesty, memory, and inclination to share information. Some participants—especially community members who could have possibly made prank calls—might have withheld information or provided socially desirable answers (Fisher, 1993). Dispatchers and EMTs might have also exaggerated the worst regarding

prank calls due to frustration or fatigue. While verbatim transcription, member checking, and triangulation reduced this threat, self-report bias cannot be entirely eliminated in qualitative research.

Third, limited access to official prank call data was a limitation. Although these recordings exist internally within the NAS, detailed information such as caller demographics, recordings of the calls, or verified prank call numbers was not accessible to the researcher due to confidentiality, ethical constraints, and data protection laws. As Creswell and Poth (2018) argue, access to multiple sources of data contributes to trustworthiness in qualitative research. In this case, the absence of call log triangulation restricted the ability to quantify prank call prevalence in a measurable manner with precision, and hence, the analysis became narrative-dependent to a large extent.

Fourth, budget and time constraints determined the scope. Fieldwork was conducted over a limited period and budget, and hence the geographical scope of the research was restricted. The recruitment of more locations, particularly rural versus urban areas, may have uncovered further variations in prank call patterns and mitigation strategies. The small sample size, although sufficient for thematic saturation, also means that subtleties of community variation could not be fully accessed. Larger studies in the future may be able to provide comparative results that were beyond the scope of this study.

Fifth, researcher bias must be mentioned. In qualitative research, the researcher is the primary data collection and analysis tool (Lincoln & Guba, 1985). While reflexive practices, coding reliability checks, and peer debriefing were employed, complete neutrality is unachievable. The researcher's background experience in emergency services and personal interest in streamlining NAS operations may have subtly affected data interpretation and theme development. This reflexivity is part of the qualitative process, but it must be noted when determining findings.

Sixth, theoretical framing was necessarily restricted. Six theoretical models used in research were the Theory of Planned Behavior, Diffusion of Innovations, Communication Privacy Management, Systems Theory, Relationship Management Theory, and Situational Theory of Publics. These theories explained behavioral, organizational, and communicative aspects of prank calls quite well. While other theories, such as deterrence theory, criminological theory, or behavioral economics

might have revealed other facets of why individuals make prank calls despite potential risks. Theoretical breadth was sacrificed for depth, but interpretive possibilities were narrowed.

Finally, prank calls as a sensitive issue presented a challenge. Discussing prank calls was embarrassing in some communities, with respondents associating prank calls with kids, ignorance, or moral decay. This may have influenced the respondents' inclination to answer freely on the subject. As Rubin & Rubin (2012) note, if a study touches on socially sensitive behavior, participants will censor themselves to protect their reputation or that of their community. This sensitivity needs consideration during the interpretation of the findings.

Overall, the study limitations are approximately context specificity, reliance on subjective accounts, restricted access to call data, time and resource constraints, researcher positionality, theoretical boundaries, and topic sensitivity. The limitations are presented not to criticize the study but to situate its contributions realistically. Importantly, these limitations also point to fertile directions for future research—research that combines qualitative depth with quantitative call data, for instance, or that broadens the analysis to broader Ghanaian and African domains.

5.5 RECOMMENDATIONS

From the conclusions, findings, and limitations of this study, various recommendations are offered to improve the Ghana National Ambulance Service (NAS) and reduce prank calls. The recommendations address the behavioral, organizational, systemic, and community dimensions of the problem.

1. Policy-Level Recommendations

Strengthen Legal and Regulatory Frameworks. The Parliament, the Ministry of Health, and the police departments need to come together to enact and enforce stricter legislation on prank calls to emergency lines. Legal regulations exist but are irregularly enforced, becoming weak as a deterrent. The Theory of Planned Behavior (Ajzen, 1991) suggests that the improvement in

perceived behavioral control through sanctions will change attitudes and norms. Empirical research by Ibrahim et al. (2018) upholds the reality that strict deterrence reduces prank call rates in limited resource environments. Incorporate Emergency Hotline Education into School Curriculum

Ghana Education Service ought to incorporate civic education about emergency hotlines within primary and secondary school curricula. Informing children about what becomes of people who place prank calls has the potential to cause early behavioral change, in accordance with Diffusion of Innovations Theory (Rogers, 2003), where schools are "change agents" for norm change.

2. Operations Recommendations for NAS

Deploy Advanced Call Filtering Technologies NAS can collaborate with telecommunication companies to implement caller ID, call-back verification, and filtering on the basis of AI to eliminate suspicious or repeated prank numbers. Systems Theory by von Bertalanffy (1968) endorses the need for functional input filters for systemic stability. The UK and Canada have reduced prank calls by implementing caller authentication (Regehr & Millar, 2014). Expand Staff Support and Wellness Programs

Given the psychological pressure imposed by prank calls, NAS must provide counseling, peer-support groups, and ongoing stress management training to dispatchers and EMTs. Relationship Management Theory (Ledingham & Bruning, 2000) cites trust and motivation as most effective in ensuring high organizational performance. High frontline worker retention enhances morale and resilience. Regular Training on Call Handling Protocols

Dispatchers could be trained to quickly identify prank call trends (e.g., repeated silent calls, inconsistent data) and minimize time wastage. It can potentially reduce the "throughput loss" in the NAS system, which in turn makes the system more efficient.

3. Community Engagement Recommendations

Enhance Public Awareness Campaigns. National campaigns through radio, television, social media, and door-to-door outreach need to emphasize the importance of emergency hotlines.

Situational Theory of Publics (Grunig & Hunt, 1984) suggests that passive publics (who know nothing of consequences) may be turned into active publics through regular communication. Publicizing dangers of prank calls—such as loss of lives due to delayed response—can create a sense of collective responsibility. Leverage Traditional and Religious Leaders as Advocates

Pastors, imams, and chiefs are influential figures in Ghanaian society. Getting them involved in campaigns against prank calls can accelerate change in behavior since they are respected "opinion leaders" who propagate positive norms (Rogers, 2003). Choudhury & Bose (2020) posit that community leaders play a crucial role in the dissemination of health-positive behavior. Implement Community Watchdog Initiatives

Local communities can organize volunteer task forces or groups to monitor prank calling among youth and promote responsible use of emergency services. Grassroots enforcement can be used as a complement to formal enforcement.

4. Research and Data Recommendations

Improve Access to Call Data for Research and Policy. NAS and telephone companies should establish standards for the ethical release of anonymized prank call information to researchers. Future studies would then be able to quantify the prevalence of prank calls and analyze demographic patterns, addressing a major shortcoming of this study. Encourage Further Multidisciplinary Research

Later studies should utilize mixed-methods designs, combining quantitative analysis of call records with qualitative interviewing. Researchers would also do well to study criminological (e.g., deterrence theory) and behavioral economics theories to more fully understand prank calling as deviant but socially structured behavior.

Summary of Recommendations

The durability of prank calls in Ghana reflects both behavioral shortcomings (ignorance, social norms) and institutional weaknesses (lack of adequate deterrence, no call screening, poor public awareness). To meet the challenge, therefore, requires Policy reforms with enhanced sanctions and education.

1. Operational measures to support staff and improve call handling.
2. Community mobilization for social norm shift.
3. Research extension to ensure evidence-based interventions.

Through the adoption of these recommendations, NAS can maximize operational effectiveness, protect staff morale, regain public trust, and ensure emergency services can fulfill their life-saving role without undue disruption.

5.5.1 RECOMMENDATIONS FOR FUTURE RESEARCH

Although the research offers striking observations on the nature, implications, and prevention of prank calls on the operations of the Ghana National Ambulance Service (NAS), it also points towards major areas that require further research. For the purpose of furthering knowledge and informing policy and practice with more robust evidence, the following are recommended areas for future research:

1. Quantitative and Mixed-Methods Approaches

This study employed qualitative methods, using interviews to gather dispatch officers', EMTs', and community members' lived experiences. As an event, prank calls must be measured in frequency and impact. Subsequent research will need to statistically analyze prank call records to capture the rate, geographic distribution, patterns of timing, and NAS economic burden of prank calls. This type of research would quantify delays in operations, loss of funds, and opportunity costs (Saunders et al., 2019). Moreover, mixed-methods research designs (Creswell & Plano Clark,

2018) combining qualitative interviews and large-scale surveys can bridge breadth and depth and provide policymakers with more nuanced data to design more impactful interventions.

2. Comparative and Cross-Cultural Studies

The results also suggest that prank calls may have cultural and structural explanations. To verify this, future studies can contrast trends in prank calling in Ghana's diverse regions (urban vs. rural, affluent vs. poor communities) or nations with similar EMS problems. Comparative studies in these dimensions will establish whether prank calling is a Ghana-specific phenomenon, an African continental problem, or a global issue in EMS practices. Linking this with Diffusion of Innovations (DOI) (Rogers, 2003), researchers can explore how prank call behaviors diffuse throughout populations and whether cultural norms facilitate or impede such diffusion.

3. Longitudinal Behavior Change Studies

Public awareness, policing, and technology reforms are usually proposed remedies. But it is not known if these interventions result in lasting behavioral change. Longitudinal studies of prank calling behavior prior to and following interventions (e.g., school education campaigns, legislation, telecom call-filtering technologies) would provide critical evidence on sustainability. These studies would also examine aspects of the Theory of Planned Behavior (Ajzen, 1991) by testing whether changes in attitudes, perceived norms, and control over behavior predict long-term reductions in prank calling.

4. Psychological and Sociological Dimensions

The present study emphasized prank calling as the intersection of ignorance, thrill, and social naughtiness. Future research can examine the psychological causes, boredom, peer pressure, rebellion, or seeking attention, through the lenses of behavioral frameworks. Application of criminological theories like Routine Activity Theory (Cohen & Felson, 1979) or Deterrence Theory (Gibbs, 1975) can shed light on why individuals would participate in abusing EMS lines even with the risk. Concurrently, Communication Privacy Management Theory (Petronio, 2002)

would demonstrate how knowingly false information is both generated and hidden from authorities. Sociological accounts would further demonstrate the degree to which prank calling is evidence of larger societal ills, for instance, suspicion of public institutions or civic irresponsibility.

5. Technological and Telecommunications Research

Since prank calls are made possible by widespread mobile phone penetration, the contribution of telecommunications networks toward making and diffusing the phenomenon has to be studied by future research. This entails exploring the potential of AI-driven call screening, biometric caller authentication, and call-back validation technologies. The research could also experiment on the feasibility of data-exchange partnerships between NAS and mobile network operators, striking the balance between public safety and privacy rights (López, 2020). Comparison of other countries' best practices, such as how the UK has integrated fraud detection technologies into emergency lines, may spur solutions that can be scaled for Ghana's context.

6. Research on Public Perception and Trust

The study identified that prank calls undermined NAS credibility and public resistance to using ambulance services. Additional research is needed to examine how misinformation, rumors, and media representation influence public views of NAS. Based on the Situational Theory of Publics (Grunig & Hunt, 1984), research in the future could examine how different groups of people (e.g., aware and apathetic publics) are engaged with or disconnected from EMS services. Such information would be applied to targeted communication strategies to regain public trust and alleviate the reputation loss resulting from prank calls.

7. Multi-Stakeholder Policy Research

Prevention of prank calls requires multi-stakeholder collaboration that includes government agencies, schools, telecommunication companies, religious organizations, and cultural leaders. Future research must explore multi-stakeholder partnership frameworks by asking questions such as: How will schools prevent prank call actions among youths? What role can religious leaders play in improving community morals? How can telecommunication companies innovate in protecting public services? Such research would synthesize Systems Theory (Von Bertalanffy, 1968) and Relationship Management Theory (Ledingham, 2003) in order to measure how collectively interdependent institutions handle prank calls without compromising legitimacy and trust. Summary

In short, future research must transcend the descriptive nature of the current study to include: Quantitative analysis of prank call patterns and costs.

1. Cross-sectional research across cultures and geographies.
2. Longitudinal analysis of intervention and behavioral change.
3. Psychological and sociological exploration of the motivations for prank calls.
4. Technological research of telecommunication innovations.
5. Public trust research based on communication theories.
6. Multi-stakeholder policy analysis.

Through the above gaps, subsequent research will not only improve academic knowledge but also establish evidence-based, implementable routes to safeguard NAS operations, enhance workers' morale, and renew public confidence in Ghana's emergency response system.

5.6 CHAPTER SUMMARY

The chapter introduced and explored the study's key findings regarding the nature, impact, and prevention of prank calls on the Ghana National Ambulance Service (NAS). Through qualitative interview data with dispatch officers, EMTs, and neighborhood representatives, analysis discovered both the social and working components of prank calls, shedding light on their causes, impact, and possible solutions. The findings were organized based on the three research questions.

To RQ1, the study established that prank calls are widespread and varied, motivated by ignorance of consequences, boredom, peer pressure, and curiosity. These activities were investigated with the assistance of Diffusion of Innovations Theory (Rogers, 2003), which explained how prank calling diffuses through peer networks, and the Theory of Planned Behavior (Ajzen, 1991), which provided insight into the role of attitudes, norms, and perceived control in sustaining the act. The study also found that prank calls are socially accepted in some societies due to slack sanctions and limited awareness campaigns.

For RQ2, the study proved that prank calls significantly affect NAS operations by resulting in wasted resources, delayed responses, and reduced efficiency. Argued on the basis of Systems Theory (von Bertalanffy, 1968), the study demonstrated how prank calls disrupt the EMS system by feeding incorrect "inputs" that taint the "throughput" of resources and the "output" of service delivery. Furthermore, prank calls were discovered to cause a psychological impact on frontline staff that was negative, creating frustration, demoralization, and burnout—issues blamed on Relationship Management Theory (Ledingham & Bruning, 2000), which emphasizes the importance of trust and morale within organizational relationships. Finally, prank calls were also found to erode public trust in NAS, as reiterated by Communication Privacy Management Theory (Petronio, 2002), which posits that breaches of trust can decrease future willingness to engage with institutions.

Regarding RQ3, the study found several community-level drivers, including inadequate civic education, tolerant social norms, and limited law enforcement. Existing mitigation activities, such as pedagogical campaigns and penal punishments, were found to be splintered and unevenly implemented. Participants recommended additional measures such as stronger school engagement, civic oversight, and technological innovations. These findings were framed in Situational Theory of Publics (Grunig & Hunt, 1984), which accounted for community passivity and potential mobilization avenues, and the Diffusion of Innovations theory, which held that preferable behavior might be transferred via identified change agents like teachers, chiefs, and parents.

Discussion framed these findings by showing that prank calls are socially embedded habits with systemic consequences instead of isolated instances of bad manners. These six theories under review provided complementary information: behavioral theories explained why individuals place

pranks, organizational/system theories explained their impact on operations and morale, and public communication theories explained how the public responds and how solutions can be communicated. This convergence facilitates previous evidence on EMS abuse (e.g., Wankhede, 2016; Regehr & Millar, 2014) by placing it in the context of the EMS system in Ghana, where resource constraints increase the severity of prank calls.

Lastly, this chapter concluded that prank calls in Ghana are both a matter of behavioral concern, on the basis of social norms, lack of information, and ineffective deterrence, and a matter of system concern, undermining operating performance, employee well-being, and public confidence in NAS. Chapter Five that follows draws on these conclusions to provide conclusions, outline limitations, and make policy, practice, and research recommendations.

RESEARCHER'S CONCLUSION

It has been established within this study that prank calling the Ghana National Ambulance Service (NAS) is not merely mischief but a socially embedded practice with systemic consequences. From the data, it was found that prank calls have identifiable patterns, are most common in the evenings, weekends, and holiday periods, and are motivated by curiosity, peer, boredom, and unawareness of consequences. These findings highlight that prank calling is not random but rather a structured social action sustained by weak deterrence and socialized within particular community contexts. In a working environment, prank calls were found to be wasting scarce resources, disrupting work processes, leading to delays in real emergency response, and inducing emotional stress on frontline personnel. Dispatchers and EMTs demonstrated frustration, burnout, and demoralization, underscoring the means by which prank calls erode morale and undermine the very commitment needed to sustain emergency medical care in Ghana. In addition to their intrinsic effects, prank calls also pose a challenge to public trust and NAS credibility, as communities sometimes misinterpret tardy responses as institutional inefficiency rather than external sabotage. This erosion of trust is most dangerous in emergency care, where credibility and timeliness are crucial to avoid death.

Community-level prank calls continue because of structural shortcomings in civic education, low family monitoring, patchy policing by law enforcement, and lack of technology adoption. While

NAS has experimented with interventions like education campaigns, caller ID adoption, and law enforcement penalties, these interventions are patchy and unevenly applied. The study therefore concludes that efforts at the individual level will always be insufficient unless there is an integrated, multi-stakeholder initiative by NAS, schools, telecom operators, local government, and law enforcement agencies.

Theoretically, the study demonstrates that prank calls can be accounted for by a multi-lens framework. Behavioral models such as the Theory of Planned Behavior (Ajzen, 1991) and Diffusion of Innovations (Rogers, 2003) explain why and how individuals make prank calls. Organizational and systemic perspectives, such as Systems Theory (von Bertalanffy, 1968) and Relationship Management Theory (Ledingham & Bruning, 2000) explain how prank calls interrupt emergency processes and erode personnel morale. Public relations perspectives, primarily Situational Theory of Publics (Grunig & Hunt, 1984) and Communication Privacy Management Theory (Petronio, 2002), reveal how prank calls erode public trust, impact impressions of inefficiency, and whether the act is resisted or supported by communities. Together, these theories demonstrate that prank calls are behavioral occurrences and systemic threats.

The researcher thus concludes that prank calls present a double danger to Ghana's emergency medical system:

A social norm, ignorance, and lack of deterrents-motivated behavioral challenge.

A systemic one, as every prank call is a diversion of limited resources, a demoralization, and an erosion of public trust in NAS.

Prank calls will not be combated by punitive measures alone but by education, community mobilization, and innovative technological interventions. Unless all these are addressed through an integrated process, prank calls will continue to undermine emergency response capacity and jeopardize lives.

Ultimately, the study verifies that while prank calls may appear insignificant, in the context of emergency medical services they are very significant, each prank call can cost a life.

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APPENDICES

Appendix A: Interview Guide

Semi-Structured Interview Guide for Dispatch Officers and EMTs

Section 1: Introduction and Consent

- Introduction of the researcher and purpose of the study.
- Assurance of confidentiality and voluntary participation.
- Informed consent statement.

Section 2: Core Questions

1. How would you describe the nature and frequency of prank calls received at your dispatch center?
2. How do prank calls affect your daily operations and response times?
3. What emotional or psychological effects do prank calls have on staff?
4. In your view, what motivates individuals to make prank calls?
5. How does prank calling impact the public's perception of the National Ambulance Service?
6. What measures have been implemented so far to address prank calls?
7. What strategies would you recommend to minimize or stop prank calls?

Section 3: Demographic Information

- Age
- Gender
- Role/Position (Dispatch Officer/EMT)
- Years of Service

Appendix B: Focus Group Discussion (FGD) Guide

For Community Members

Introduction:

- Explain the purpose of the research.
- Obtain consent for participation and recording.
- Emphasize anonymity and confidentiality.

Core Questions:

1. How do people in your community perceive the ambulance service?
2. Have you ever heard of prank calls to the ambulance service? If yes, what are the common reasons?
3. How do prank calls affect your trust or willingness to call the ambulance in real emergencies?
4. Why do you think people do not call the ambulance even during emergencies?
5. What can be done to change attitudes toward prank calling?

Appendix C: Sample Interview Transcript (Excerpt)

Participant: Dispatch Officer (Pseudonym: Kofi, Age: 35)

“Sometimes we receive five to six prank calls in one night. It delays us from attending to real emergencies... By the time we realize the call is fake, precious minutes have been wasted.”

Appendix D: Coding Framework

Open, Axial, and Selective Coding

Theme	Open Codes	Axial Codes	Selective Codes
Nature of prank calls	false alarms, curiosity, testing the system, hoax calls	prank calls as habitual behavior	prank calls as socially embedded behavior
Operational impact	delayed response, wasted fuel, fatigue	resource drain and inefficiency	systemic operational disruption
Emotional/psychological impact	frustration, anger, demotivation	low morale among staff	emotional strain
Public perception and trust	lack of trust, misunderstanding of service	reputation damage	erosion of public confidence
Mitigation strategies	call screening, education, sanctions	systemic and behavioral interventions	integrated mitigation framework

Appendix E: Ethical Clearance Form University

Name: University of Media, Arts and Communication (UNIMAC-IJ)

Faculty/School: Faculty of PR, Advertising and Marketing (FOPAM)

Department: Public Relations

Researcher's Name: Ruby Ntim

Student ID: MASPRM24019

Programme of Study: Master of Arts in Strategic Public Relations Management

Title of Research: 'An Examination of the Nature and Operational Consequences of Prank Calls on Emergency Dispatch Operations: A Case Study of the National Ambulance Service and Mitigation Strategies'.

1. Purpose of the Study:

This study seeks to explore the nature, motivations, and consequences of prank calls on the operations of the Ghana National Ambulance Service (NAS). It also aims to identify practical and strategic mitigation measures to enhance the efficiency and reliability of emergency medical response systems in Ghana.

2. Researcher's Declaration:

I, Ruby Ntim, hereby declare that I will uphold the highest ethical standards in the conduct of this study. All participants will be informed of the purpose, procedures, risks, and benefits of the research. Participation will be strictly voluntary, and confidentiality will be guaranteed. Data collected will be used solely for academic purposes.

Researcher's Signature: _____

Date: _____

3. Ethical Considerations:

- Participation is voluntary, and participants may withdraw at any time without penalty.
- No physical, psychological, or legal harm will come to participants.
- Data will be stored securely and anonymized to ensure confidentiality.
- Informed consent will be obtained from all participants prior to data collection.
- Pseudonyms will be used in all transcripts and reports.
- Ethical clearance has been sought and approved by the university's research ethics committee.

4. Committee Review and Approval

This research proposal has been reviewed and approved by the University of Media Arts and Communication (UNIMAC-IJ), Faculty of PR, Advertising and Marketing Research Ethics Committee.

Name of Committee Chair	Signature	Date	Stamp
{	}	_____	_____

Appendix F: Informed Consent Form

1. Purpose of the Study

You are being invited to participate in a research study that seeks to understand the nature, causes, and effects of prank calls on the operations of the Ghana National Ambulance Service (NAS). The study also explores practical strategies to reduce prank calls and improve emergency response efficiency in Ghana. Your participation will provide valuable insights to strengthen emergency medical services and inform policy development.

2. Procedures

If you agree to participate:

- You will take part in an interview or focus group discussion lasting approximately 30–45 minutes.
- Questions will focus on your experiences with prank calls, their effects on operations, and your views on mitigation strategies.
- Discussions may be audio-recorded for accuracy, but only with your permission.
- Your responses will be kept strictly confidential.

3. Potential Risks and Discomforts

There are no known physical or psychological risks associated with this study. However, you may choose not to answer any question you find uncomfortable. You may also stop the interview at any time without giving any reason.

4. Potential Benefits

Although you may not benefit directly, your contribution will:

- Help shape policy and operational strategies to minimize prank calls.
- Strengthen public trust and service delivery within NAS.
- Add to the academic and practical knowledge of emergency medical systems in Ghana.

5. Confidentiality and Anonymity

- All information you provide will be kept strictly confidential.
- Your real name will not appear in any report or publication; pseudonyms will be used instead.
- All recordings and notes will be stored securely and accessible only to the researcher and supervisor.
- Data will be destroyed after the study is completed.

6. Voluntary Participation and Right to Withdraw

- Participation is entirely voluntary.

- You may withdraw from the study at any time without any penalty or explanation.
- If you withdraw, any data you have provided will be deleted and will not be used in the research.

7. Contacts for Further Information

If you have any questions or concerns about the study, you may contact:

- **Researcher:** Ruby Ntim – Email: rubys.ntim@gmail.com - Phone Number; 0245023533
- **Supervisor:** Prof. Etse Sikanku Phone Number; 0596562653
- **Institutional Ethics Committee:**

8. Statement of Consent

I have read (or have had read to me) the information provided above. I understand the purpose, procedures, risks, and benefits of participating in this research. I understand that my participation is voluntary and that I can withdraw at any time without any consequences. I consent to participate in this study.

I agree to have the interview audio-recorded.

I do not agree to have the interview audio-recorded.

Researcher's Name (Print) Signature Date

Appendix G: Plagiarism Report

This appendix presents the plagiarism or originality report generated through [Turnitin/Institution's Approved Plagiarism Detection Software]. The purpose of this report is to ensure that the content of this thesis meets the required academic integrity standards, and that all sources have been appropriately acknowledged in accordance with APA 7th edition referencing guidelines.

The report confirms that the work is original, with proper citations and references provided throughout the thesis. The similarity index falls within the acceptable threshold set by [University Name/Graduate School/Department], which is typically below [e.g., 20%].

Details of the Plagiarism Report:

- Student Name: Ruby Ntim
- Student ID: MASPRM24019

- Thesis Title: An Examination of the Nature and Operational Consequences of Prank Calls on Emergency Dispatch Operations: A Case Study of the National Ambulance Service and Mitigation Strategies.

A scanned copy or PDF of the official plagiarism report will be attached on the next page.

Appendix H: Letter of Introduction to the National Ambulance Service (Official letter seeking permission to conduct research at NAS.)

Letter of Introduction to the National Ambulance Service

UNIVERSITY OF MEDIA, ARTS AND COMMUNICATION (UNIMAC)

Faculty of Public Relations, Advertising and Marketing (FoPAM)

Department of Public Relations

P. O. Box GP 667, Accra – Ghana

15/08/2025

The Chief Executive Officer

National Ambulance Service

P. O. Box MB 423

Ministries – Accra

Dear Sir,

LETTER OF INTRODUCTION AND REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am a postgraduate student at the University of Media, Arts and Communication (UNIMAC), pursuing a Master of Arts degree in Public Relations. As part of the requirements for the completion of my programme, I am conducting a research study titled: "An Examination of the Nature of Prank Calls To The National Ambulance Service (NAS) and Mitigation Strategies".

The purpose of this study is to examine the nature, prevalence, and operational impact of prank calls on emergency dispatch operations at the National Ambulance Service (NAS). The study further seeks to identify practical and strategic measures that can be adopted to minimize or eliminate prank call incidents and enhance emergency response efficiency in Ghana.

In line with this, I kindly seek permission from your esteemed institution to conduct interviews and collect relevant data from selected departments and personnel within the National Ambulance Service.

All information gathered will be used strictly for academic purposes and will be treated with utmost confidentiality. No personal identifiers will be disclosed in the final report.

I would be most grateful for your approval and support to enable the successful execution of this research. Attached to this letter are my approved research proposal and ethical clearance from the University of Media, Arts and Communication.

Thank you for your kind consideration and anticipated cooperation.

Yours faithfully,

.....

RUBY NTIM

Student ID: MASPRM24019

M.A. Public Relations

Email: rubys.ntim@gmail.com

Phone: **0245023533**

Appendix I: Data Summary Tables

This appendix presents a summary of key data collected during the research. The tables below provide an overview of prank call frequencies, regional distribution of calls, and details of participants involved in interviews and focus group discussions (FGDs).

- Frequency of prank calls reported

Table I.1: Frequency of Prank Calls Reported (2023–2024)

Category	Number of Calls	Percentage (%)	Remarks
Total emergency calls received	350,000	100%	Nationwide data from NAS reports
Verified legitimate emergency calls	245,000	70%	Includes medical, trauma, and obstetric emergencies

Reported prank calls	105,000	30%	Includes hoax, hang-ups, and non-emergency misuse
Average prank calls per day	287	—	Estimated based on NAS daily call volume

Source: National Ambulance Service Call Dispatch Records (2024)

- Distribution of calls by region (if applicable)

Table I.2: Regional Distribution of Prank Calls

Region	Total Calls	Prank Calls	Percentage of Prank Calls	Remarks
Greater Accra	120,000	42,000	35%	High urban prank incidence
Ashanti	75,000	22,500	30%	Second highest prank call rate
Central	40,000	12,000	30%	Similar prank pattern as Ashanti
Volta	30,000	9,000	30%	Urban-rural prank mix
Northern	25,000	7,500	30%	Pranks often from younger age groups
Westem	20,000	6,000	30%	Moderate prank levels
Other Regions Combined	40,000	6,000	15%	Lower prank rates

Total	350,000	105,000	30%	National prank call rate

Source: National Ambulance Service Regional Reports (2024)

- Interview and FGD participation details

Table I.3: Interview and FGD Participation De

Community / Area	Type of Engagement	Number of Participants	Gender (M/F)	Age Range	Key Stakeholders
Madina Zongo	Focus Group Discussion	10	6M / 4F	21–45	Youth leaders, traders, community members
Nima	Focus Group Discussion	9	5M / 4F	18–50	Residents, informal sector workers
Chorkor	Interview + FGD	11	6M / 5F	23–55	Fisherfolk, residents, traders
Agbogbloshie	Focus Group Discussion	8	5M / 3F	19–47	Market women, youth, head porters

Ashiaman Market	Individual Interviews	5	3M / 2F	22–40	Market vendors, taxi drivers
NAS Dispatch Center	Key Informant Interviews	7	4M / 3F	25–50	Dispatch officers, paramedics, supervisor
Total		50	29M / 21F	—	Community members and emergency service personnel

Source: Field data (Interviews and FGDs, 2025)