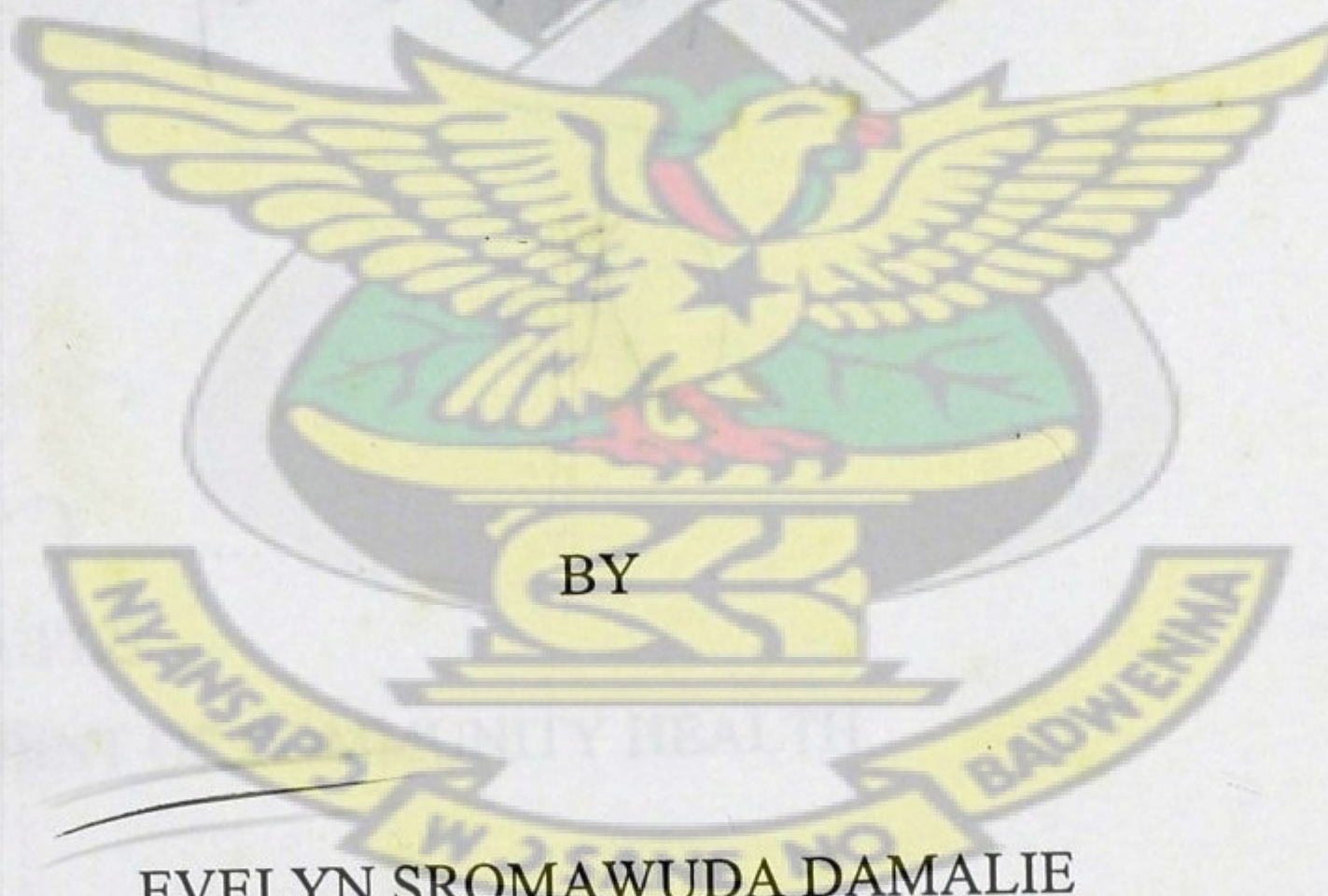


**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND TECHNOLOGY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF MEDICAL SCIENCES
DEPARTMENT OF COMMUNITY HEALTH**

**HEALTH SECTOR PREPAREDNESS FOR MOTOR TRAFFIC EMERGENCIES – A
CASE STUDY OF SELECTED HEALTH
INSTITUTIONS IN THE ACCRA METROPOLIS**

**A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE
STUDIES OF THE KWAME NKRUMAH UNIVERSITY OF SCIENCE AND
TECHNOLOGY, KUMASI, IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF THE MASTER OF SCIENCE DEGREE IN HEALTH
SERVICES PLANNING AND MANAGEMENT.**

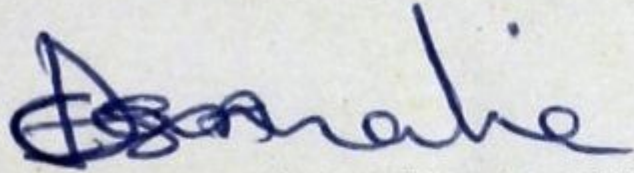


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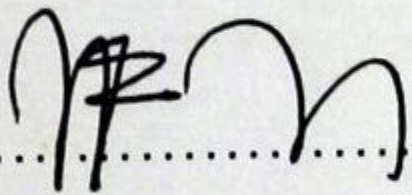
DECLARATION

I hereby declare that, except for references to other people's works that have been duly acknowledged, this work is the result of original research work undertaken by me under supervision. It has neither been in part nor whole submitted for a degree elsewhere.

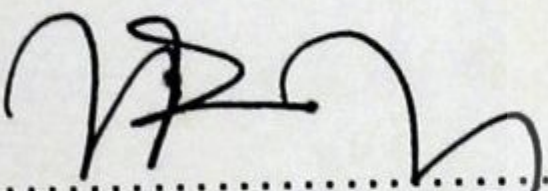


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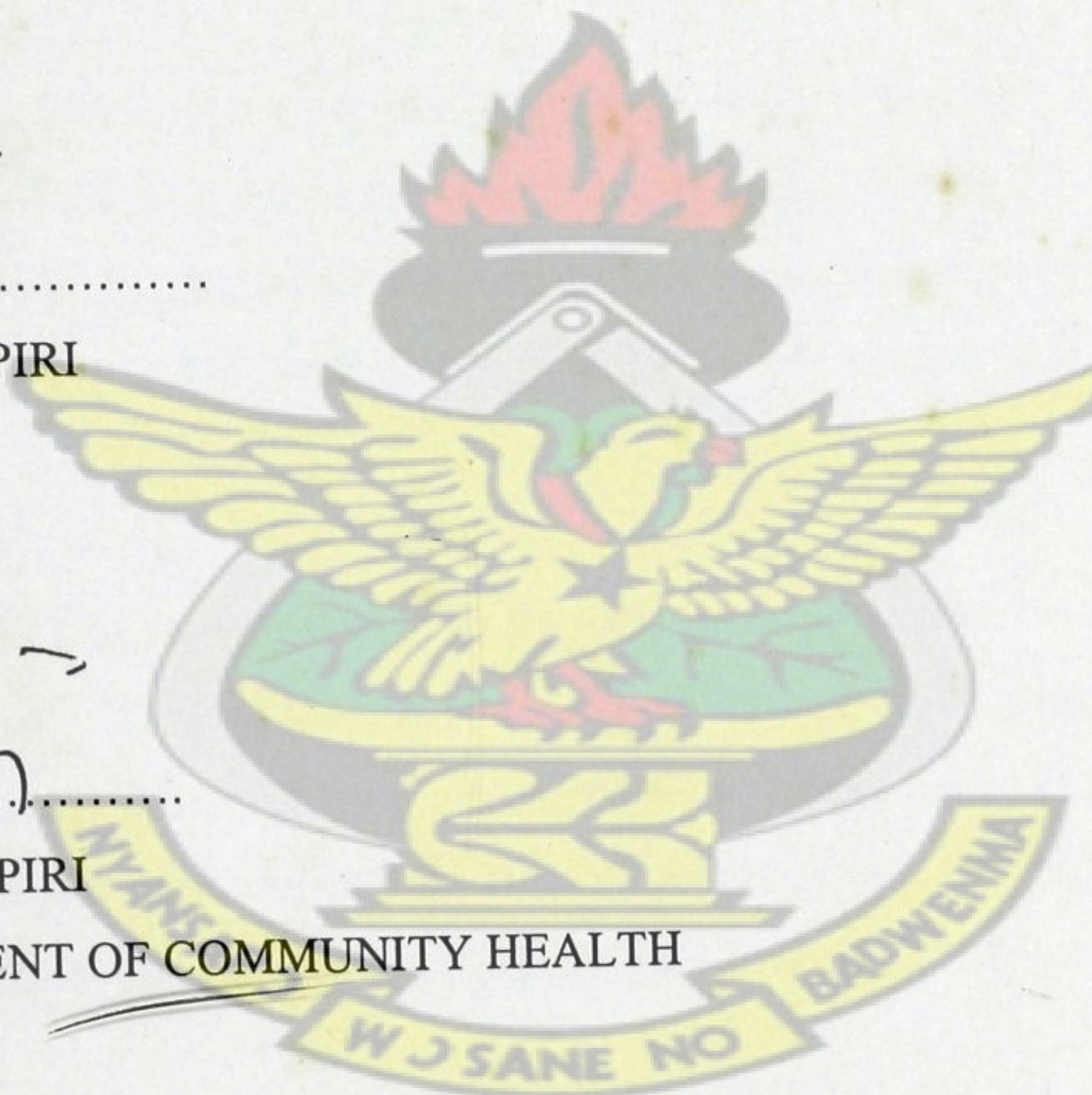
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DEDICATION

I dedicate this work to all Road Traffic Accident Victims.

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LIST OF ABBREVIATIONS

AIDS	-	Acquired Immune deficiency Syndrome
A&E	-	Accident and Emergency
EMT	-	Emergency Medical Team
ENT	-	Ear, nose and throat
GDP	-	Gross Domestic Product
GPRTU	-	Ghana Private Road and Transport Union
GRSP	-	Global Road Safety Partnership
HIV	-	Human Immune deficiency Virus
LAB	-	Laboratory
MOD	-	Ministry of Defence
MOE	-	Ministry of Education
MOH	-	Ministry of Health
MTEs	-	Motor Traffic Emergencies
NHIS	-	National Health Insurance Scheme
NRSC	-	National Road Safety Commission
NRSP	-	National Road Safety Program
RTAs	-	Road Traffic Accidents
UN	-	United Nations
WA	-	West Africa
WHO	-	World Health Organization.

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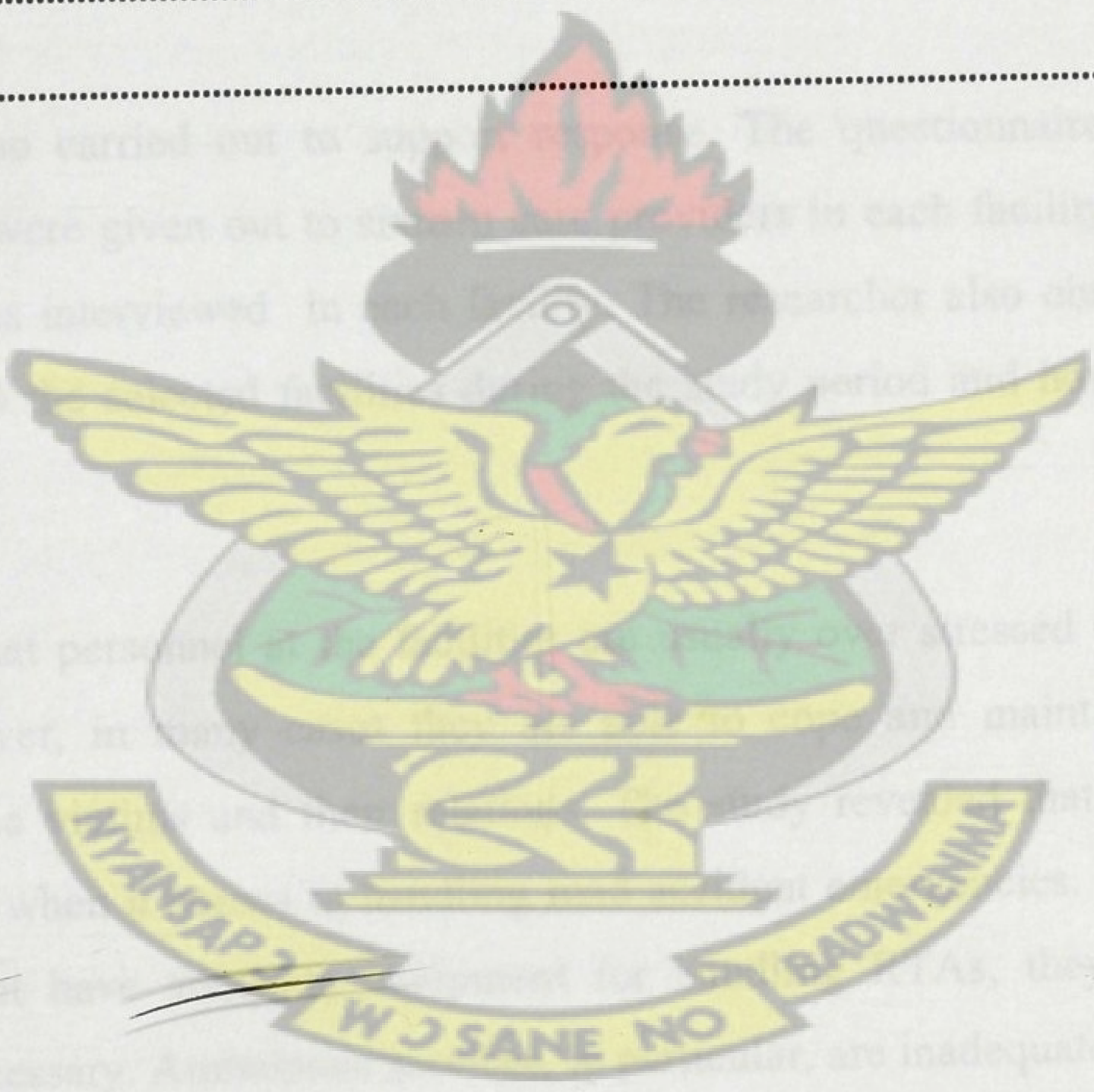
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ABSTRACT

Road traffic accidents are becoming rampant in the Accra metropolis. The after effect rests mainly on the health sector. According to Lt.Col. Dzansi, head of the Accidents and Emergency Unit of 37 Military Hospital, (personal communication 2005), about 70% of cases reported at the Unit are usually RTA related.

The main objective is to assess the preparedness of the health sector to take care of these increasing incidences of RTAs within Accra Metropolis. The study was descriptive cross-sectional. It was carried out in the emergency unit of four selected health institutions in the Metropolis namely; Korle Bu Teaching Hospital, Ridge Hospital, Mamobi Polyclinic and 37 Military Hospital. A structured questionnaire and an interview schedule were used to elicit information from respondents.

Observation was also carried out to support response. The questionnaire, containing eighteen questions, were given out to sixteen care providers in each facility, and thirty road accident victims interviewed in each facility. The researcher also observed the inflow of RTAs into the selected facilities during the study period and how these were handled.

A key finding is that personnel at the facilities are usually over stressed during RTAs emergencies; however, in many cases they are able to cope and maintain a cordial relationship with the victims and their relations. The study revealed that nurses' lack specialised training when it comes to handling road accident emergencies. Even though, the facilities do not have adequate equipment for handling RTAs, they are able to improvise when necessary. Ambulance services, in particular, are inadequate.

Findings revealed that all the facilities are prepared to handle RTAs emergencies; however, there are few things to put in place to make the facilities' care delivery better. It is recommended that more nurses should be trained. Infrastructure should also be expanded at the emergency units to make handling of victims of RTAs effective

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Road traffic accidents have become a global issue. Several activities have been organised by nations to reduce the prevalence or prevent it totally. Both government and non-governmental organisations have undertaken projects to this effect (WHO, 2004). Celebrations to mark the World Health Day by World Health Organization (WHO) highlighted road traffic accident prevention as one of its missions.

Road traffic accident prevention must be incorporated into a broad range of activities such as the development of road infrastructure, provision of health and hospital services, child welfare services among others (Dong-wook and Wolfensohn 2004), with the Health Sector as an important partner in this process.

WHO has undertaken projects in several places all over the world, aimed at prevention of road traffic accidents. Some of the projects are:

- In Australia-Victoria a group of organisations including Transport Accident Commission and Victorian Parliamentary Road Safety Commission were involved in the campaign against road traffic accidents.
- In Brazil, Ministers of cities, health and transport organised road safety programs to educate the public about RTAs.
- China organised a campaign for the use of seat belts as a safety measure against road accidents.
- Lebanon's Youth Association for Awareness and Scientific Research Foundation organised a Road Safety Festival to observe the campaign against road accidents.
- South Africa also organised a "Stay Alert, stay alive" program as a road safety measure.
- Nigeria, Ghana's neighbour organised a free eye test for drivers as a way of its contribution to road safety.

Ghana is rated second in road traffic fatalities in West Africa (GRSP, 2003). Data collected on road safety might not always be accurate; however records indicated that between 1991 and 2004, over 130,000 road traffic accidents were recorded in the country with more than 18,000 deaths; not withstanding those injured in the process (NRSC, 2001). Most of the accidents (58%) involved commercial vehicles.

According to the NRSC, on a regional basis, Greater Accra had the highest cases followed by Ashanti over the same period (NRSC, 2001). The situation has become so alarming that the NRSC developed a Five Year National Road Safety Strategic Plan to minimise road accidents and fatalities. Recently, a non-governmental organisation known as the "Safe Roads for Us" was formed at Tema with the aim of sensitising people (school children especially) on road safety measures. Records showed that, 25% of school children 16 years and below die as a result of road accidents (Acquaye & Mock, 2000). Edusei (2001) noted that, those involved in injuries and death are adults aged between 31 to 50 years followed by children 1 to 10 years.

A Road traffic accident contributes to increased expenditure in the health sector. It is estimated that Ghana loses about one million United State dollars on road accidents annually (Asenso-Okyere 2001). Road accidents cost developing countries between 1% and 2% of their Gross Domestic Product (GDP). These costs include medical care, property damage, and lost household productivity. Forty percent (40%) of the adult surgical beds in some urban hospitals in developing countries are occupied by road accident victims (WHO, 2004).

Several organisations are involved in motor-traffic accident prevention in Ghana. Notable among them are National Road Safety Commission (NRSC), Motor Traffic and Transport Unit of the Ghana Police Service, Ghana Private Roads and Transport Union (GPRTU). These are in the form of workshops and lectures to educate the public; both pedestrians and motorists.

According to WHO, the major factors responsible for road traffic accidents in Ghana are: human, environmental, vehicular and the nature of roads Human factors (WHO, 2004). Human factors may be due to drunkenness, poor vision, inexperience in driving,

carelessness etc. Environmental factors are the weather and blurred vision. Vehicles may be in bad shape, develop a fault or may not be read worthy. Bad roads and infrastructure, cracks or pot holes may be a factor to accidents on roads in Ghana.

This study sought to determine the state of preparedness of some selected health institutions in the Accra Metropolis in handling motor-traffic emergencies.

From January to June 2005, as many as 2,836 cases of motor-traffic accidents were recorded by the MTTU. The quarterly breakdown is shown in Tables 1.1 and 1.2

Table 1.1: RTA for 1st Quarter, Accra 2005

Stations	Total No. of Cases	Vehicles involved	Break Down of Cases			Casualty	
			Fatal	Serious	Minor	Person Killed	Person Injured
Tesano	228	310	5	38	185	5	47
Jamestown	11	12	1	4	6	1	11
Kotobabi	37	65	1	5	31	1	22
Kpeshie	98	136	5	5	88	5	25
Central MTTU	187	289	1	68	128	1	143
Cantonments	69	121	1	28	40	1	27
Odorkor	306	569	6	96	204	6	65
Madina	54	85	3	16	35	3	33
Osu	17	25	-	6	11	-	6
La	34	53	3	15	16	3	31
Airport	274	537	5	39	230	6	103
Korlebu	51	78	3	12	36	3	64
Ministries	-	-	-	-	-	-	-
Dansoman	7	9	1	4	2	1	6
Total	1487	2469	39	341	1107	40	603

Source : MTTU 2005

The Central MTTU in Accra keeps a quarterly record of RTAs in the Accra Metropolis. The table above shows a record of the first quarter where Odorkor, Airport, Texano and Central MTTU registered higher RTA cases with 39 fatalities and 341 serious cases out of a total of 1487. The second quarter also registered 1349 RTAs with 40 fatalities and 311 minor cases. Incidentally, Central MTTU also registered very high number of cases. However, the number that report at our health facilities out of the total number of cases cannot be easily detected by the hospital records.

Table 1.2: RTA for 2nd Quarter, Accra 2005

Stations	Total No. of Cases	Vehicles involved	Break Down of Cases			Casualty	
			Fatal	Serious	Minor	Person Killed	Person Injured
Tesano	209	310	2	41	166	2	56
Jamestown	15	18	-	5	10	-	15
Kotobabi	32	50	3	13	16	5	24
Kpeshie	50	77	1	9	40	1	51
Nima	104	175	3	14	87	3	59
Central MTTU	234	365	1	10	223	1	72
Cantonments	84	154	4	30	50	4	31
Odorkor	289	485	8	87	194	8	88
Osu	14	22	-	1	13	-	1
La	17	27	3	5	9	3	10
Airport	108	226	6	32	70	6	62
Korlebu	54	78	1	22	31	1	43
Kaneshie	32	49	2	10	20	2	26
Dansoman	22	35	1	5	16	5	24
Total	1349	2186	40	311	998	46	584

Source: MTTU, 2005

1.2 Statement of the problem

Motor-traffic accidents are on the increase in Ghana. This has become a major concern for government, institutions, individuals and the country as a whole. Ghana was rated the second highest road traffic accident-prone country among six West African countries,

with a record of 73% deaths per 10,000 accidents (GRSP, 2001). From January to March 2005, Accra alone recorded 1,487 motor accidents involving 2,469 vehicles (MTTU, 2005). According to them, during the period, there were 79 fatalities, 380 serious injury cases and 1,107 minor cases resulting from vehicular crashes (MTTU quarterly report 2005). The second quarter recorded 1,349 cases involving 2,189 vehicles with varied degrees of injuries and fatalities (MTTU, 2005).

One institution that is burdened and charged with the responsibility of taking care of motor-traffic accidents is the Ministry of Health and the Ghana Health Service. The Director General of Ghana Health Service describes the situation as alarming and declares motor-traffic accident as the most “deadly disease” at the moment (NRSC, 2001). He made this declaration based on data collected on RTA’s in recent times. Data available at the health institutions in Accra confirmed that almost everyday a motor-traffic case is reported at the health facilities.

However, over the years, very little effort has been made to find out how prepared the health facilities are to handle motor-traffic accidents in the Accra Metropolis. For this reason the researcher sought to find out how prepared the Health sector is to handle motor traffic emergency.

1.3 Significance of the Study

Motor-traffic accidents have become a thorny problem in Ghana as well as any other developing country. It therefore became necessary for several organisations to come together to give it a more positive approach in order to achieve a lasting solution (GRSP Annual Report, 2001).

The National Road Safety Commission (NRSC) in conjunction with other stakeholders have organised workshops on road safety to address the issue (WHO, 2001). The big question is, how prepared are the health facilities to take care of this problem? The study sought to find out the resources, both human and non-human at the disposal of health institutions to carry out its work to give health care to accident victims.

The results would be used to improve upon the current situations prevailing in our health institutions with regards to the effective handling of motor traffic emergency cases.

1.4 Research Questions

Based on literature review and the scope of the study, the following questions were asked.

- 1 What resources are available to the health institutions to take care of motor-traffic emergencies?
- 2 What challenges face the health institutions in carrying out their duties in motor traffic emergencies?
- 3 How effective is information flow among staff when dealing with motor traffic emergencies?
- 4 What standard procedures are followed in handling motor traffic emergencies?
- 5 Are clients satisfied with the care they receive from the health facilities or institutions that attend to them in times of the accidents?

1.5 Objectives of study

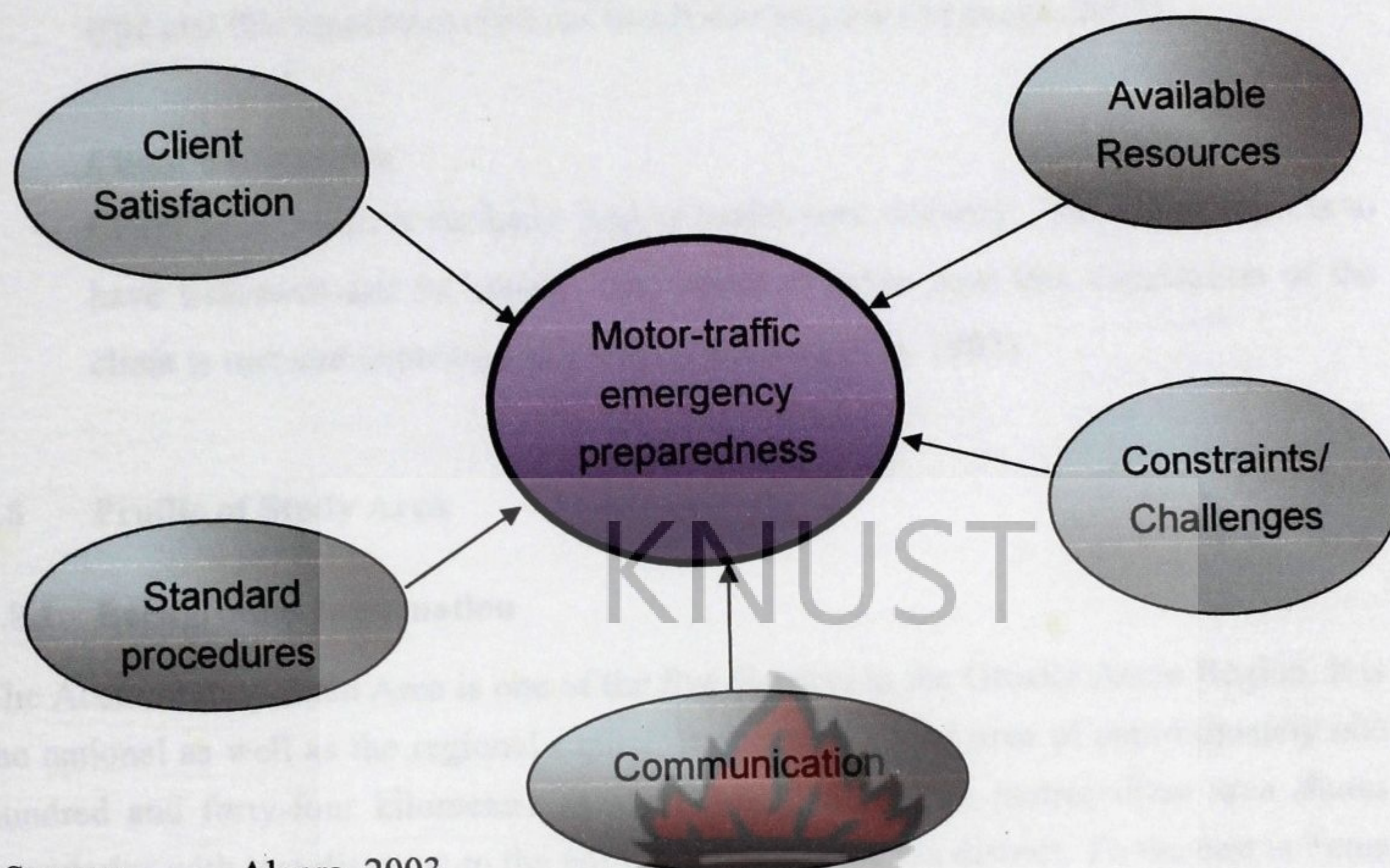
The main objective of the study was to determine the preparedness of the selected health institutions in the Accra Metropolis to handle motor-traffic emergencies and to suggest strategies for improvement.

1.6 Specific Objectives

1. To determine the resources available to the selected health institutions in handling motor traffic emergency cases.
2. To identify challenges health institutions encounter when dealing with motor traffic emergencies.
3. To determine the effectiveness of information flow among health staff in dealing with motor-traffic emergencies.
4. To determine the standard procedure that is followed in handling motor-traffic emergencies in the selected health institutions.
5. To find out whether clients are satisfied with the care given in times of motor traffic emergencies.
6. To make recommendations to improve upon the current situation in the handling of motor traffic emergencies in our Health Institutions.

1.7 Conceptual Framework

Figure 1.1: Determinants of RTA Preparedness.



Source: Aloera, 2003

1.7.1 Available Resources

Resources are grouped under materials, personnel and financial resources. It is important to identify resources available to the health facilities in order to have adequate and efficient distribution to purpose (Aloera, 2003).

a. Communication

This is the flow of information among people who render service in the course of an emergency at the health facility. Effective communication is very important at this time to coordinate activities among people and groups. In the health sector a code of communication is very necessary, as this needs to be used as a professional code and security measurers at times.

b. Challenges

Constraints to job performance are numerous. This may begin from the environment of working and clients one works with as well as colleagues.

Most of the time challenges hinder work output and progress (Herzberg et al, 1993).

c. Standard Procedures

Motor-traffic accidents are emergency cases and needs to be treated as such. There are laid down rules to follow as standard procedure in handling cases of the type and this must be carried out to achieve success (Acquaye, 2003).

d. Client Satisfaction

Client satisfaction is the basic cost of health care delivery. The client expects to have treatment and be cured. One needs to make sure this expectation of the client is met and expressed in a way. (Herzberg et al, 1993).

1.8 Profile of Study Area

1.8.1 Background Information

The Accra Metropolitan Area is one of the five districts in the Greater Accra Region. It is the national as well as the regional capital. It occupies a land area of approximately one hundred and forty-four kilometers square (144km. Sq.). The metropolitan area shares boundaries with two districts; to the north and west is the Ga district. To the east is Tema Municipal Area. The south is bordered by the Gulf of Guinea, which stretches from Nungua through Teshie, La, and Osu to the Chemu Lagoon near Chorkor.

1.8.2 Population

Although the district covers a small land area it has about 70% of Greater Accra Region's population that is one million, eight hundred and, eight thousand people (1,808,000) with an annual growth of 4.4% (Accra Metro Health report, 2003).

1.8.3 Profile of Study Facilities

37 Military Hospital

Health Care in the Ghana Armed Forces is under Ministry of Defence (MOD) located in Ayawaso sub district.

The Ghana Armed Forces Medical Service is one of the support services providers within the armed forces. It provides the necessary health and related services to 3 services namely the Army, the Navy the Air Force in both peace and war times. The main purpose is to maintain healthy professional Armed Forces through 37 Military Hospital. During the period of 1970s, the workload at the facility was compatible to the facilities available.

Things however changed later when they started seeing the general public as well. It also has admitted roles to assist the Ministry of Health in National Emergencies & Disasters. Notable among those Emergency Response Hospital and also serves as United Nation (UN) Level IV medical facility in the W.A. sub region. To achieve these tasks, the hospital is categorised in the following sections.

- a. Accident & Emergency Centre
- b. An OPD Complex
- c. 12 In-patient ward

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Ridge Hospital – Located in the Osu-Clottey District

It a Regional Hospital upgraded to this status with a view of decongesting Korle Bu Teaching Hospital. It serves areas around it both far and near, at times as far as from Eastern Region as referral cases. The main aim of Ridge Hospital is to provide efficient, quality and affordable health service to the people of Greater Accra Region. Among the services rendered are General OPD, Emergency Recovery/Casualty, Dental, ENT, Lab/Blood Bank, X-ray, Public Health, Pharmacy and many others. The main priority among the major concerns of the facility is to construct Accidents and Emergency Centre with Intensive Care Unit due to its numerous emergency cases. Among the major emergency cases reported are RTAs, which are reported at the facility almost everyday.

Korle Bu Teaching Hospital

Located in Ablekuma Sub-District. Has a dual role of educating and training personnel as well as taking care of patients' need. It offers specialist health care, education/training, research and advocacy. Its main objective is to improve continuously with quality of services and enhance client/patient satisfaction in a most cost effective manner and bring up personnel skills to meet the standard set. Major Challenges facing the institution are finance to carry out development projects and staff brain drain. Others are poor referral system, inadequate funding replacement of old equipment. Among the prevalent emergency cases, RTAs form a percentage of 70 which is a major concern to the facility and emergency unit.

Maamobi Poly Clinic

It is located in the Ayawaso sub-metro. It covers a small area with a very high population density, bringing with it numerous environmental and health problems. It has a variety of

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ethnic groups and other nationals from neighbouring countries whose health needs are all taken care of by the facility. Environmental sanitation is a major problem facing the area thus related cases are often reported at the facility. Technical Services rendered are Medical Care, Dental Care, Maternity Services, Public Health, Disease Control, Pharmacy Services, Laboratory Services, X-ray Services among others. The high population give rise to frequent RTAs, which are basically reported at the facility. Though the emergency unit is not expanded, the facility gives the initial attention before making any referrals.

With exception Of 37 Military Hospital all the facilities have their RTAs breakdown in Gender and in age. 37 Military hospitals has a total of 551 males, 231 females and 40 children. The rest of the facilities have these as follows.

Table 1.3: Breakdown of RTA in Three Health Facilities, January-June , 2005.

FACILITIES	MALE						FEMALE					
	<1yr.	1-4yrs	5-14yrs	15-44yrs	45-60yrs	60yrs+	<1yr.	1-4yrs	5-14yrs	15-44yrs	45-60yrs	60yrs+
HEBU	15	87	179	1,665	122	54	25	41	39	211	121	39
GE	3	2	20	312	24	11	3	3	24	105	22	3
MOBI	2	6	22	102	10	1	-	21	12	50	2	3
YCLINIC												

Source: Field Data, 2005

1.9 Scope of Study

The study concentrated on the health sector preparedness to handle motor traffic accidents. It looked at the resources available to the health institutions to handle road traffic accidents human and non- human. It examined the effectiveness of communication among health personnel in times of road traffic accidents (RTAs). It also looked at challenges facing health personnel in carrying out their duties at the emergency unit when handling RTAs. In addition, the study also looked at the procedure the care providers follow when handling RTAs and finally to find out whether services they provide satisfy their clients.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Available Resources

It has been documented that deficiencies in resources could lead to inefficiency in reaching out to clients, patients or victims, as the case may be, in handling health care issues (Longest et al, 1996). Wisner and Adams (2002) identified and categorized resources under human and materials resources, most of which are needed by health institutions in order to handle any emergency. .

2.1.1 Personnel

Personnel are a very important element in service delivery. These include all care providers and their supporting staff. The availability of the health staff greatly affects the care and attention a motor-traffic accident victim receives from the service point. The personnel required include nurses, doctors, pharmacists, paramedics, technicians and other supporting teams to handle emergency situation in the health sector. Ideally health professionals should be well trained to handle emergencies and at least have one simulation exercise a year. In view of this, the Ministry of Health advertised in the 22nd, December 2004 edition of the spectator to train ambulance technicians as a step towards preparation in getting skilled personnel to handle motor-traffic accidents and other emergencies in Ghana.

In addition, the Komfo Anokye Teaching Hospital organizes a national workshop each year on emergencies to get the health sector institutions prepared for emergencies. Motor-traffic accidents are sudden and are therefore emergencies (Hugue, 1989). In emergency preparedness, the health sector should organize programs to educate, train related personnel as well as the general public about motor-traffic accidents and emergencies; how to respond, how resources should be mobilized and utilized, and many others (Pelge, 2003).

In training, personnel are taught map reading, role play in motor-traffic accidents and many others as preparation towards emergencies (Smith et al, 2000 and Dymon et al, 1991).

Wisner and Adams (2002) also maintain that in an emergency, health measures are carried out by a variety of people besides health staff. These are social workers, teachers, police or servicemen among others. One needs to learn how to relate to such people in times of motor-traffic accidents. Another important training necessary for health personnel to acquire is processes that they need to follow in the handling of motor-traffic accidents. Most Health Facilities in Ghana prepare a duty roster for personnel according to the time and length of time that each should be in the ward and work. Personnel are assigned to hospital wards according to the number of patients kept. Currently this cannot be strictly followed as there is a general emigration of health personnel.

With the current state of the exodus of health personnel there is pressure on the personnel at the wards, however, the personnel available must do all they can to give their clients the needed attention. The accident and the emergency unit of the health facilities must be experiencing much pressure, as the clients need much attention. Regular check on the clients on how they fare is needed as often as possible. The more this is done, the better as this would make it easier for personnel to follow the effect of their treatment and medications. Patient care and attention given by health personnel begins the healing process (Ministry of Education, 2000).

2.1.2 Treatment and Care/Material Resources

These are notably equipment and supplies to carry out the needed services for the emergency. According to Wisner and Adams (2002) money should be made available to overcome deficiencies and replenish stocks that run low or damaged. Connes and Sandler (1986) cautioned that there should be enough allocation of these resources to enable health staff do their work. These supplies include clothing, food, medicine and many others. There is the need to have these materials in place. Oxygen supply systems, replacement fluids, dressing, blankets, clothing, medicine, food and many others are all important. Currently, health institutions in Ghana do not keep enough supply of treatment materials in the wards for victims. However, the basic ones are made available most of the time and the rest made available at pharmacy shop attached to the hospitals or facilities for direct purchase (Acquaye 2003).

2.1.3 Accommodation

Road traffic accident victims suffer various types of injuries. Some may be more severe than others. Some are treated and discharged while others are admitted. There may be cases of dead bodies to be kept at the right place and later sent to the morgue (Acquaye, 2003). Accommodation, therefore, refers to all structures and facilities available to the hospital to keep and work on victims of accidents of any kind. It considers the number of rooms, space and beds available in the hospitals or health facility including an operating theatre which may at times be within the facilities to work with. A facility cannot exceed its intake. However, in times of RTA anything could happen and if victims are more than a facility can accommodate, there is not much to be done. In any case the victim must be given initial emergency treatment before any further decision is taken. Ghana Health Services as quoted by Acquaye (2003) maintains that all health facilities should have A & E units with at least one small room with 2 beds, in the smaller health facilities. Ideally, at the accidents and emergency centre, there should be enough beds and each room should have adequate space to allow free movement of care providers and anyone who comes around. Overcrowding should be avoided as this can cause obstruction to the health care provider and also promote infections. Beds should be enough to avoid victims sleeping on floors and benches. According to Acquaye (2003), hostels for relatives of road accident victims are needed for effective care and recovery.

2.1.4 Transportation

This is very necessary in times of emergencies such as Road Traffic Accidents. There is the need to clear victims from the site of accident; there may also be the need to transport personnel to the site; acquisition of extra supplies as determined by the intensity and severity of the accident and many others (Wisner and Adams, 2002). Transportation may also be needed for internal movement when it comes to transfers of patients from one point to the other. This may be in the form of ambulance, taxis private cars, air craft, trucks as the case may be. In Ghana the ambulance service is hardly ever used. Taxis are mostly used which forms about 60% of transportation used in times of RTAs (Acquaye 2003).

The ambulance service use is very low in Ghana, but it is active in some pilot study areas namely Tema, Amasaman, Weija, Nkawkaw, Mamponteng and Komfo Anokye Teaching Hospitals. The available ambulances are mainly hospital based and meant for inter-

hospital movement of patients. Presently private individuals are operating ambulance hiring services. Partners in collaboration with health may be of help with transportation when it becomes necessary e.g. police, military, fire service and the Environmental Protection Agency.

The number and type of vehicle is very important to look at in times of RTA. The type to use would depend on type of accident and purpose e.g. canoes and motor-boats may become useful in times of flooding; big trucks may be needed to evacuate people from the area to the facility (Wisner and Adams, 2002). In RTA the higher the number of vehicles the better, as this would speed up response in health service delivery. Most internal movement of patients especially is done in a wheelchair, for example, taking the patient to the X-ray Department. Getting out of the unit or facility to get local supplies demand waiting.

Wisner and Adams (2002) maintain that emergency unit staff should always be ready and available and suggested that there should be a ready transport for them to take them to and fro. Countries that can afford doctor manned ambulances should have it as well as paramedics or Emergency Medical Technicians. Acquaye (2003) suggested an improvement in the ambulance service in hospitals in Ghana especially teaching and specialist hospitals.

2.2 Constraints in Service Delivery at an Emergency unit

Health care service deliveries is full of challenges, such as those involved in taking care of victims, job satisfaction and inter personal relationships (Hui and Stanfield 1998). Working at the emergency unit is very demanding. Apart from the skills one needs to deliver the service, one also needs stamina in order to stand the stress in working 24 hours a day and 7 days a week (MOH 2004). Personnel are exposed to all kinds of conditions. They spend much time standing, bending or leaning on victims as the situation demands. They stand all types of risks such as blowing of sirens to cause hearing impairment and exposure to deadly diseases such as HIV/AIDS and HEPATITIS B; or brain damage victims.

They are usually emotionally drained when facing life and death situations (Standfield & Hui, 1998). Frustrating situations make personnel disorganized such as a patient not

having any control over his emotions, may not be able to speak or remember anything about himself (Sheet, 1984 and Standfield, 1998). This is worse when the relations of the victim cannot even be traced. According to Adams et al (1994) a patient's condition may limit or prevent the care provider's performance on the job at hand e.g. sudden unconsciousness, abnormal behaviour, mobility limitation of victims. Aggression from patients and their relations may deter the nurse or care provider from giving his or her best (Bradley, 1985). Public interference in the form of instructing the health staff on what to do and not having enough patience for the staff to do what they are skilled to do also affect the performance of the facility and staff.

Lack of equipment, old equipment and improvisation may contribute to more frustration on the job (MOE, 2000). According to them using inappropriate tools on a job prolongs the output and makes the job tiring.

Lack of motivation from clientele as well as employer may not make the care provider show any enthusiasm towards his work. In Ghana, health workers usually sit down because of poor remuneration. Ghana as a developing nation faces many difficulties in handling emergencies adequately. A study conducted by Quansah & Mock (1999) points out the fact that there is no organized trauma care system for accident victims. There are long delays in transportation of victims to the hospital which may be due largely to the absence of EMT. Communication may also pose a problem even if there is EMT available.

WHO (2004) have devised few means of taking care of risks that health personnel face at the A & E unit. These are gloves, goggles, sharps disposal, biological waste disposal, gowns and post-exposure prophylaxis for HIV. MOH also prescribed regular training in universal precautions.

Quansah & Mock (1998) again observed that there is no proper record on trauma handling for health personnel to learn from and improve upon. These and several others pose a challenge to work output by health facilities.

2.3 Communication

This is information flow among health personnel and all others who contribute in times of

accidents and emergencies. In motor-traffic accidents information should get to all those in health care delivery as well as those that will help to bring the situation under control. If communication breaks down in this critical time, more havoc will be caused. Aloera (2003) quotes Schneider (1995) as saying that bureaucracy in communication in times of accident breaks or slows down the flow of information.

Acquaye (2003) maintains that in the course of an emergency or disaster communication should be screened and only important ones allowed flowing through. Those involved should know where to go and what to do. They must be able to rally each other to take up the challenge or task. During road traffic emergencies the health sector cannot function in isolation. Communication is very necessary between corresponding units and organizations and any problem with information flow can lead to contradictions in response (Loera, 2003). Clear communication makes response effective (Atikpui, 2003). Atikpui and Acquaye (2003) both in separate studies identify the cell phone as one of the fastest means of sending information. They suggested that there should be a laid down communication plan to avoid unnecessary calls and instructions. When necessary codes are used so as not to send alarming signals to victims and relations.

Wisner and Adams (2003) identify telephone, fax, letter, internet (e-mail), satellite, television and radio communication as easy means of sending information to one another in times of emergency. The cell phone is however identified as the fastest and efficient means of communication especially when the regular lines are down. Atikpui (2003) in his studies counted events that different means of communication were used and how each worked for people and circumstances. He pointed out that in preparation for emergencies, list of people, units in a facility and organizations must be compiled in addition to their contact numbers. Recovery service numbers must also be made available.

The media is another important body that can easily send messages across. They only need to be cautioned so as not to send alarming signals to the public.

Within a facility if there is the need for re-enforcement at the accident and emergency unit, the "in-charge" at the unit quickly communicates to the administrator and/or directly to the heads of the other units to help. Communication according to Loera (2003) should

be among three bodies notably government, health sector/personnel and collaborating bodies or agencies. General and sector meetings could be held from time to time to discuss and make plans on emergencies to make communication easy when motor-traffic accidents happen (Hugue, 1989). Just as in adopting codes, a unified language could be adopted as a security measure. Incidentally every profession has its own language.

2.4 Standards Operating Procedures

There should be a plan to follow in giving an emergency service so as to keep emergency response in health institutions in a state of readiness, enhance the health community's ability to respond, and help the respondents i.e. care givers to avoid being part of the problem at hand (Wisner and Adams, 2002).

It is advisable for every facility to have an Accidents and Emergency (A & E) unit (Acquaye, 2003). The design of an A & E unit is quite unique. It is different from the other units due to its peculiar clientele. Bradley (1985) suggests large doors that can take 2 or more ambulances to enter the unit. In addition, there should be separate doors for stretchers. Victims should not be crowded in a room and doors should always be opened to avoid further casualties. Nurses should not move too far to pick equipment and supplies. Trolleys and shelves should be close to them i.e. emergency staff working on a victim. There should be a large area for resuscitation and also to attend to patients conveniently. However cases cannot be turned out for lack of space all the time. At least the initial care should be given (Whitley et al, 1996). X-ray facilities should be available and medical stores should be at action spot not far away.

An operating theatre is also necessary to be within the A & E unit, or not far from the unit. There should be a staff room for nurses to relax when necessary to take off a little bit of the stress. According to WHO (2004) there is generally a problem of trauma care so they advised that a trauma care project be instituted. These projects have begun in certain facilities for example, Mampong General Hospitals in the Ashanti Region.

Emergency Procedures are categorized into 2, namely: Pre hospital care (professional and non-professional) and in-hospital care.

Pre Hospital Care Professional - Stranfield and Hui (1998) maintains that in a motor-traffic emergency, the situation should be quickly assessed to know what is needed.

There may be times that the health personnel or emergency staff may be transported from the site to the hospital. In cases of this sort there are personnel from the technical division that carry out this and they work in the ambulance team. These are called Emergency Medical Technicians (EMT) Stanfield and Hui (1998).

The pre-hospital non professional care is usually carried out at the site of the accident and this is usually done by non-professionals (Bradley, 1985). Sometimes community members and passers-by have knowledge in giving first aid and understand how the human body works so as to be able to carry and position an injured person without further damage (Acquaye & Abebrese 2003).

In-hospital care is at the service delivery point where everybody gets involved, when professionals are at work (Zenz, 1999).

The care given to victims depends on where and what time of the day and when the patient or victim arrives at the facility. He maintains that the survival of a victim in a motor accident does not only depend on the nurse at emergency unit but also on the general public who could be trained on first aid and timely intervention to prevent some of the unnecessary deaths in motor accidents. In any case the training could be given by the Health Ministry.

Priorities are given in treatment and cases are treated with peculiarities (Zenz, 1999). Adequate preparedness for an emergency according to Bradley (1985) depends on the number and quality of staff available, the size of the department, the equipment available and the location of a nearby hospital in case of a major disaster when the accident occurs eg. As many as sixty or more victims could be reported in a motor accident which means more hands to help the situation.

2.5 Client Satisfaction

The ultimate aim of a patient taken to a facility is to find solution to a problem. Stanfield and Hui (1998) maintains that everyone has a right to health care, regardless of ethnic, social or economic background (MOH, 2003). Society has come to accept this fact that it is a consumer's right to get treated at the health facility when ill.

Emergency medical services according to Standfield and Hui (1998) and WHO (2004)

though very demanding expects the same outcome, however critical the situation is. The expectation of the accident victim is to get well and rehabilitated. WHO (2004) describes these as needs of the injured patient. They are services that are needed by the patient to get well and get back to former state if possible.

Whitley et al (1996) observed that trauma patients have both physical and psychological needs which should be given by the care providers. These are categorized into 3 broad needs: Appearance, Approach and Attitude of care providers

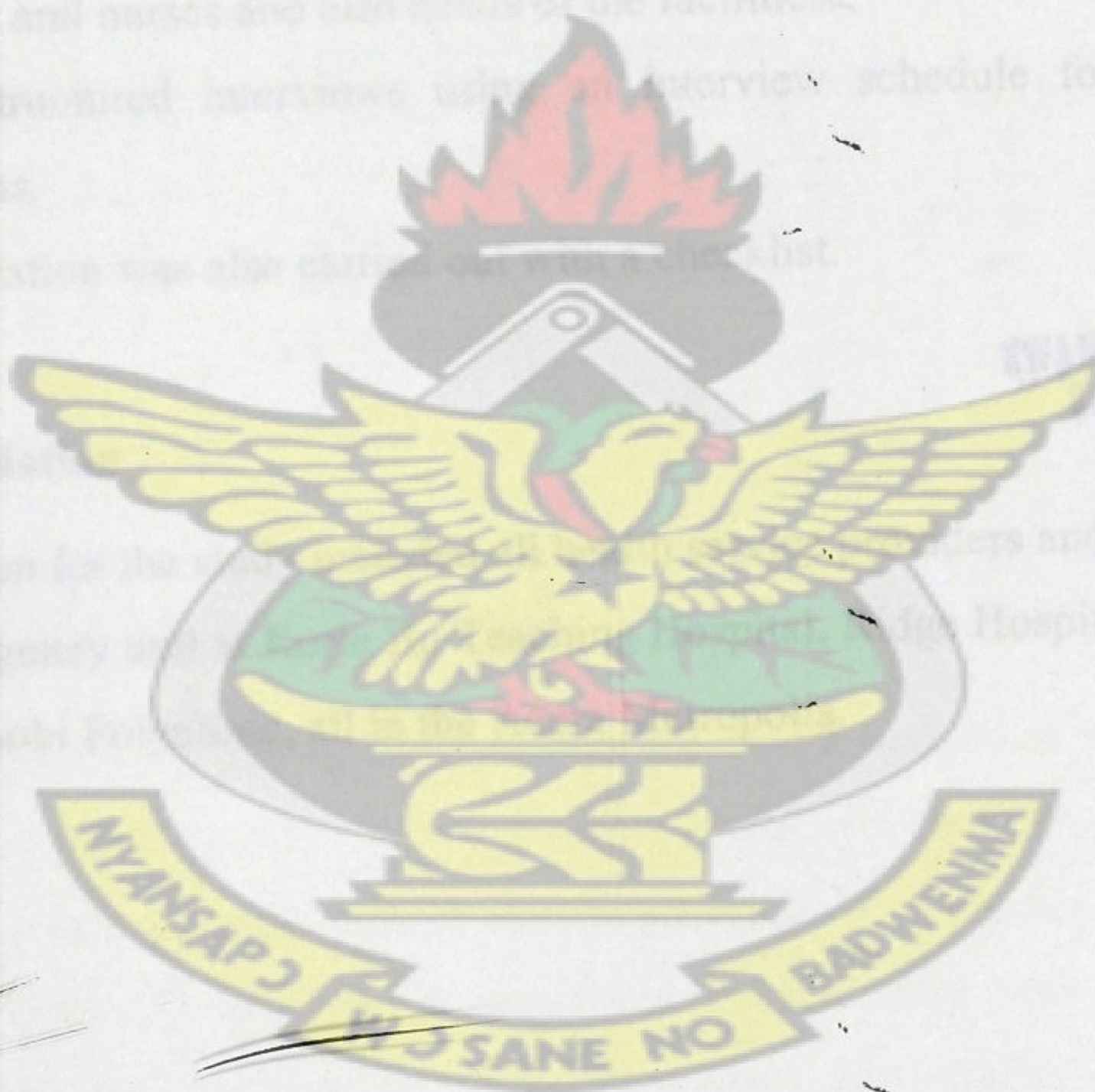
3.2 Data Collection Techniques and Tools

Both primary and secondary data were collected for the study. The following tools were used to collect the data:

- Structured questionnaires were used to collect data from doctors and nurses and also heads of the facilities.
- Semi-structured interviews were used to collect data from clients and relatives.
- Observation was also carried out to collect data.

3.3 Study Population

The target population for the study was all trauma patients and road accident victims at the emergency department of the Hospital, 37 Military Hospital and Maamobi Police Station.



CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Methods and Design

A cross sectional descriptive study type was utilized to obtain qualitative data from respondents to assess the level of preparedness for motor-traffic emergency in all the institutions visited.

3.2 Data Collection Techniques and Tools

Both primary and secondary data were collected for the study. The following tools were used to collect the primary data.

- Structured questionnaire with both closed and open ended questions for doctors and nurses and also heads of the facilities.
- Semi-structured interviews using an interview schedule for clients and relations.
- Observation was also carried out with a checklist.

3.3 Study Population

The target population for the study included all health service providers and road accident victims at the emergency unit at Korle Bu Teaching Hospital, Ridge Hospital, 37 Military Hospital and Maamobi Polyclinic, all in the Accra Metropolis.

3.4 Study Variables

Table 3.1: Study Variables

Variable	Operational definition	Scale of Measurement
Available Resources		
Personnel	Number of care providers	Ratio
Treatment/care	Any material used to arrest the situation	Nominal
Accommodation	Number of rooms and beds available to the health facility	Ratio
Transportation	Types and quantity of vehicles in times of disasters	Nominal and Ratio
Challenges	Limitations to quality care delivery.	Nominal
Communication	Information flow in times of motor-traffic emergencies	Ordinal
Standard Operating Procedure	Steps followed in handling motor traffic emergencies	Ordinal
Client Satisfaction	Clients feelings expressed about care received at the health facility	Ordinal

Source; Author, 2005

2.5 Sample Size and Sampling Technique

Forty-six (46) people were interviewed in each of the health institution selected for the study comprising 16 care providers and 30 motor traffic accident victims. The care providers were selected by simple random sampling technique, while the motor accident victims were conveniently sampled. A structured questionnaire was used to elicit information from the care providers on how emergency road traffic accidents were handled, while accident victims were interviewed to obtain information on the kind of care and treatment given to them when they were brought to the facilities.

3.6 Pre-testing

The questionnaire was pre-tested by giving out 5 copies to the staff at facilities which were not selected for the study to see the accuracy and validity of the questions asked. Any anomaly discovered was corrected and the larger set printed out. The interview schedule was also tried on few of the clients and the necessary corrections made.

3.7 Data Handling

4 Research assistants were recruited from each facility. They were to ensure that all the questionnaire have been properly filled and collected. At the end of each day the completed tools were checked for completeness, accuracy and consistency.

3.8 Data Analysis

Data was analysed at the end of the day with the available information gathered.

3.9 Ethical Consideration

Consent was sought from each individual participant in each of the hospital. The participants were briefed on the study and were made to know that they have the right to decide on either to participate or withdraw from the study without suffering any effect. Further, responses provided by the participants were handled by the researcher only and this was used strictly for academic research purposes.

3.10 Limitations

Getting heads of the institutions to talk was a problem since they are most often very busy attending meetings and seeing to other administrative issues.

- Much time was spent on the questionnaire since one had to wait on respondents to fill them.
- Accurate secondary data collection posed a problem since some cases at OPD are not always recorded.
- Time to carry out the research is also limited.
- Some of the respondents especially care providers thought the data was going to be used to assess their non-performance so were not prepared to give the right information others thought it was unnecessary.
- Some of the clients were also expecting money from the research and were disappointed to hear it does not attract payment to them.

3.11 Assumptions

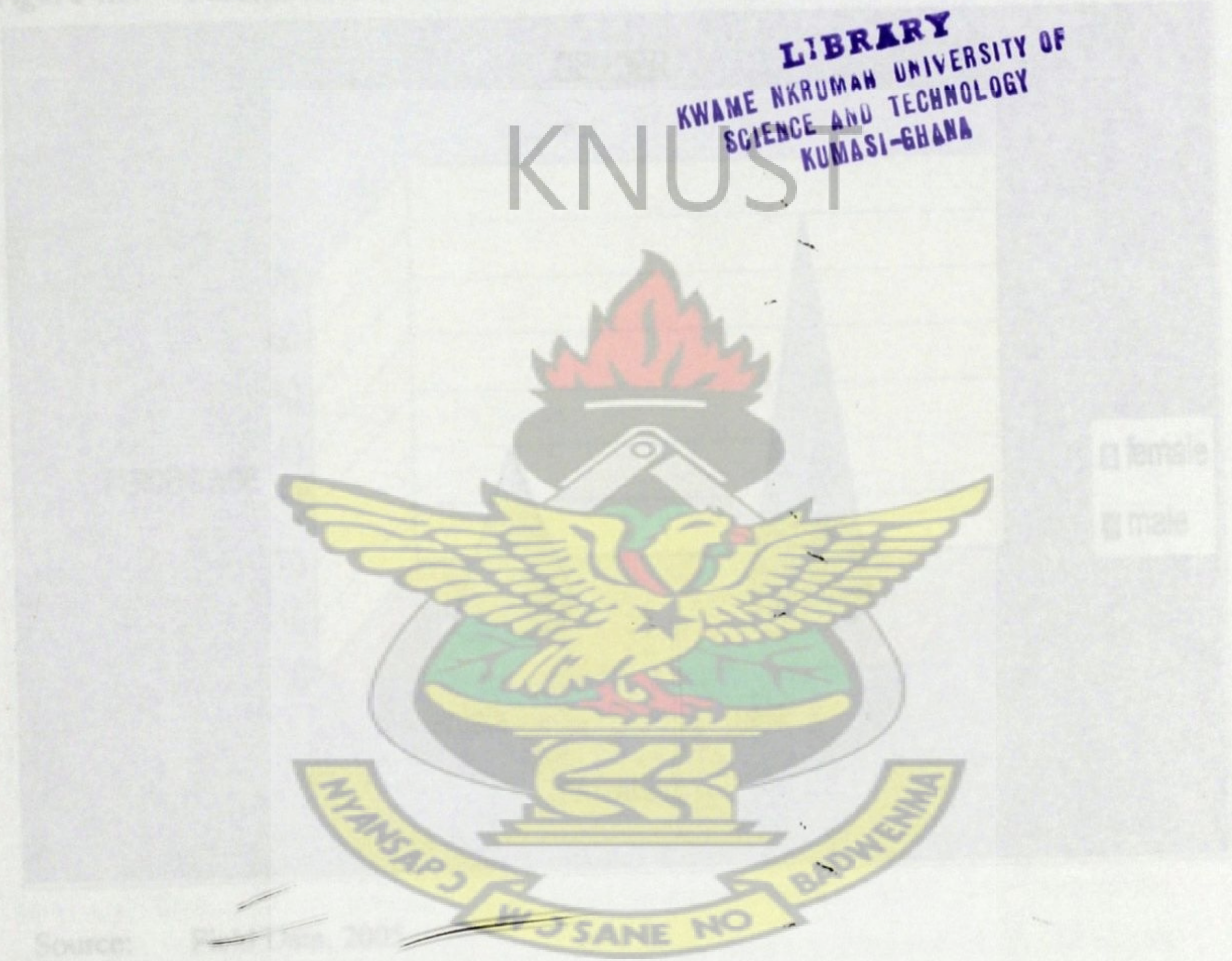
It is assumed that the available information collected at the selected facilities is accurate and that data on road accidents collected at the different institutions are properly kept therefore true. It is also assumed that all the respondents have understood all questions asked in the questionnaire and during the interviews and therefore have given the

correct response. Finally, it is assumed that the final report given on the study gives a true picture of what is happening at the health institutions, and that the suggestions given will meet expectation.

4.1 Socio Demographic Data of the Respondents

The demographic data of the participants are depicted in the figures below.

Figure 4.1: Percent Distribution of Clients by Gender



Source: Field Data, 2005

Figure 4.2 in the graph shows that majority of the client participants were males (70%). The rest (30%) were females. Fifty-one percent (51.67%) were married whilst 35.83% were single. Those widowed formed 5.83% of the sample of clients studied whilst 6.67% were divorced. (Fig. 4.2)

CHAPTER FOUR

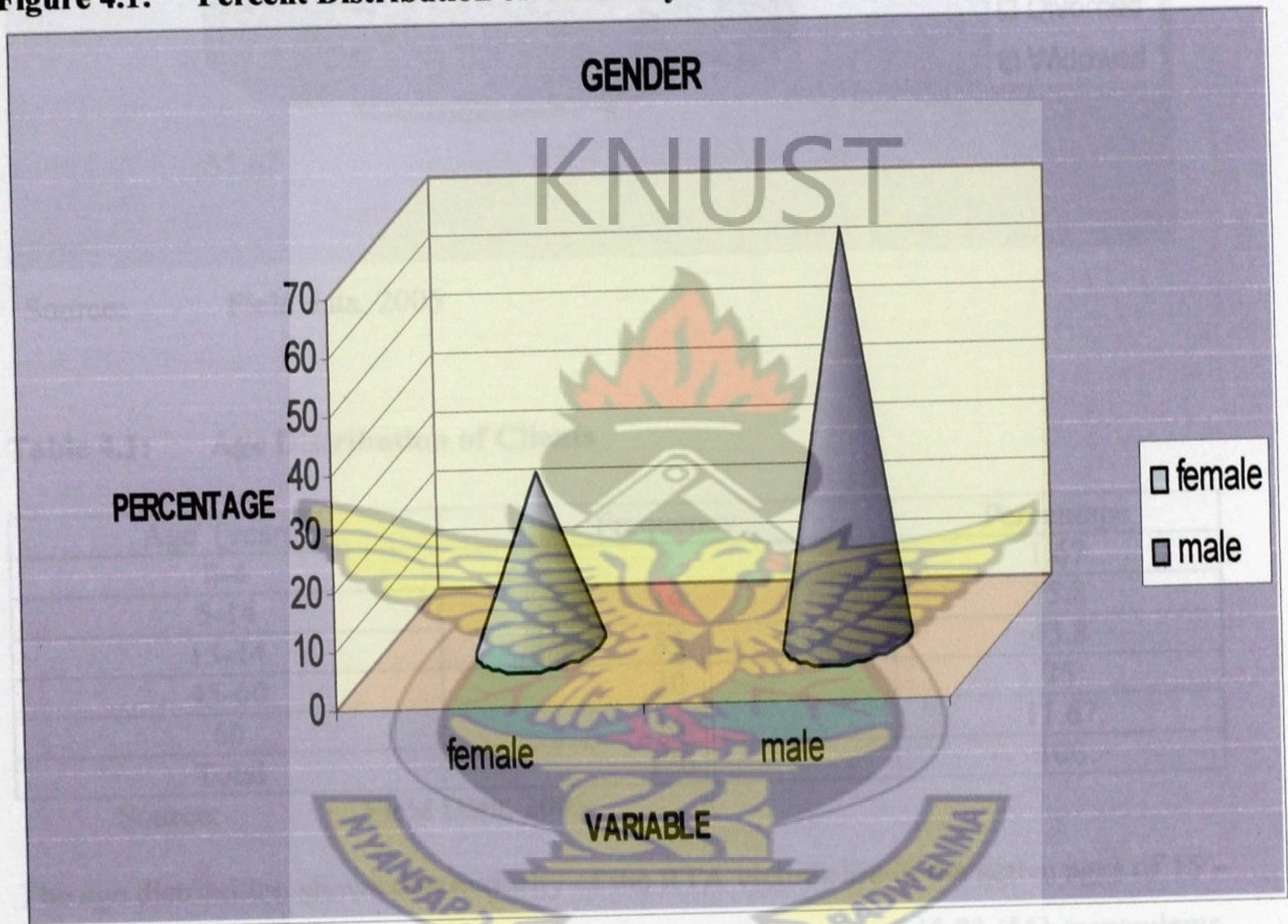
4.1 RESULTS AND ANALYSIS

This chapter presents the results of the study.

4.1 Socio Demographic Data of the Respondents

The demographic data of the participants are depicted in the figures below.

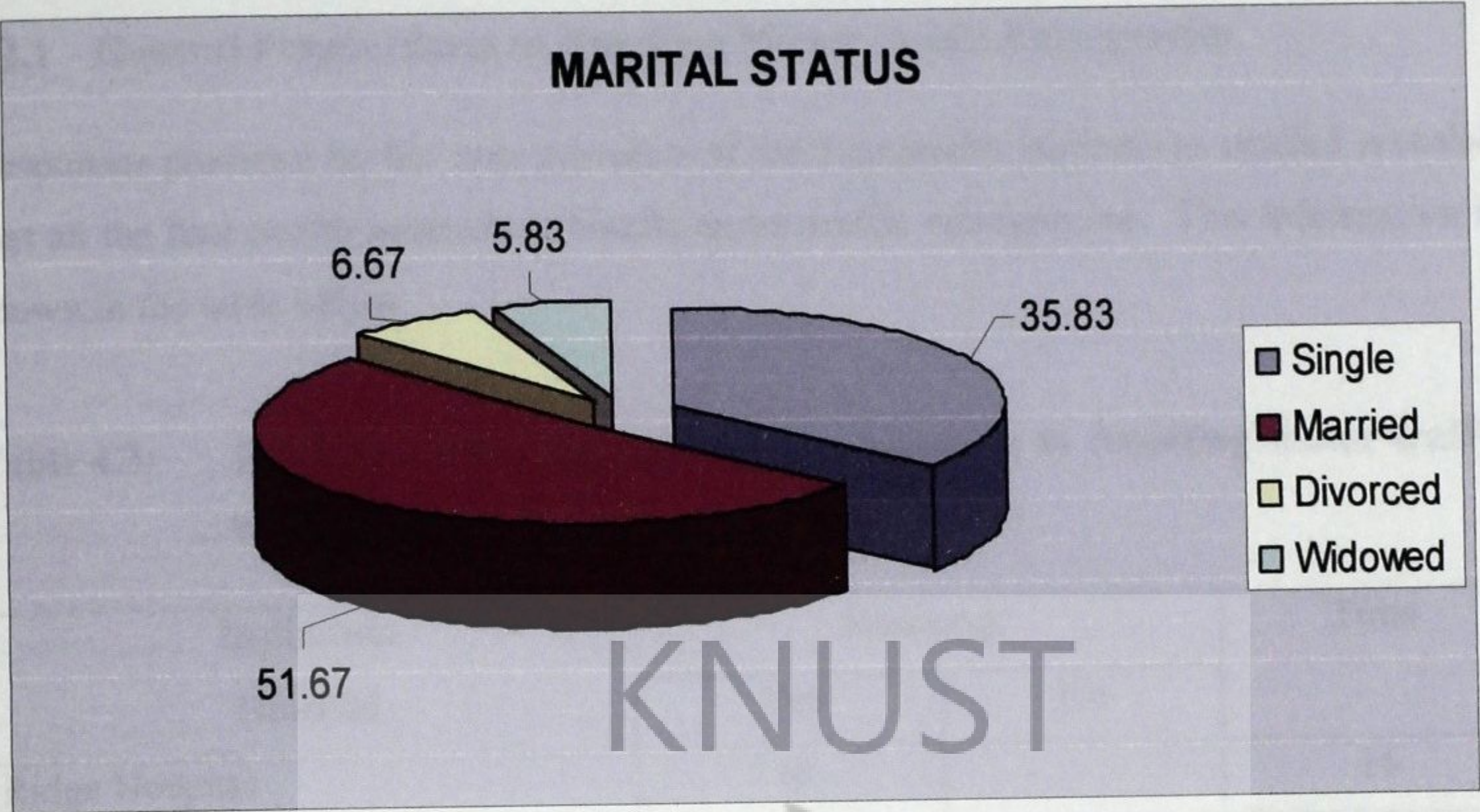
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Source: Field Data, 2005

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Figure 4.2: Percent Distribution of Clients by Marital Status



Source: Field data, 2005

Table 4.1: Age Distribution of Clients

Age (years)	Frequency	Percentage
0-4	2	1.67
5-14	19	15.8
15-44	55	45.8
45-60	30	25
60	14	11.67
Total	120	100

Source: Field Data, 2005

The age distribution shows that majority of the RTA victims are in the active ages of 15 – 60 years. With majority in ages 15 – 44 forming a percentage of 45.83 (55) respondents. There were 30 clients that fall within 45 – 60 years with a percentage of 25. 19 clients (15.83%) are between 5 – 14 years. 11.67% (14) respondents are above 60 years with a minimal of 1.67% (2) respondents below 5 years. Out of the 64 care providers, 18 (28.13%) were medical doctors and the rest 46 (71.87%) were nurses. These participants had once worked in different units which include surgical, OPD, Clinical, maternity, orthopaedic, nursing administration, accident and emergency and gynaecology.

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4.2 Resources Available to the Study Institutions

4.2.1 General Preparedness in Handling Motor-Traffic Emergencies

Responses provided by the care providers of the four health institutions studied revealed that all the four health institutions handle motor-traffic emergencies. This information is shown in the table below.

Table 4.2: Frequency table on participant’s response to handling motor-traffic emergencies.

Institution Hospital	Response		Total
	Yes	No	
Ridge Hospital	16	-	16
37 Military Hospital	16	-	16
Korle Bu Teaching Hospital	16	-	16
Mamobi Polyclinic	16	-	16
Total	64	-	64

Source: Field Data, 2005

Thus from the table above, all the participants from the four health institutions reported that they handle motor-traffic emergencies. Finally on the preparedness of the hospitals to handle motor-traffic emergencies, the respondents reported that certain measures are put in place to ensure that motor accidents are handled promptly. These measures according to the respondents include staff discipline, ready staff and Available staff.

42 (65.63%) respondents claimed that they can rate their institution as a facility ready to handle motor traffic emergencies which the rest 22 (34.38%) denied.

4.2.2 Adequacy of Resources in the Study Institutions

Inspite of the unanimous report of handling motor-traffic emergencies, some of the respondents think they do not have enough facilities to handle disaster or accidents. This information is shown in the table below.

Table 4.3: Frequency table on respondents' response on whether they have enough facilities to handle disaster or motor-traffic emergencies.

Institution Hospital	Response		Total
	Yes	No	
Ridge Hospital	8	8	16
37 Military Hospital	16	-	16
Korle Bu Teaching Hospital	10	6	16
Maamobi Polyclinic	4	12	16
Total	38	26	64

Source: Field Data, 2005

Figures in table 3 showed that all the participants from 37 military hospital (100%) reported that they have enough facilities to handle disasters and motor-traffic emergencies. 62.5% of the participants from Korle Bu Teaching Hospital reported that they had enough facilities whilst the rest (37.5%) felt they do not have enough facilities to handle emergencies. On the part of those from the Ridge Hospital, 50% confirmed having enough facilities whilst the other 50% do not think so. Only 25% from the Maamobi Polyclinic reported that they have enough facilities to handle disasters and motor-traffic emergencies. However, the rest (75%) do not think they have enough facilities to do so.

4.2.3 Handling of RTA emergencies in the Study Institutions

Handling emergencies according to the participants take different forms. Data on the way through which emergencies are handled is shown in the table below. The table revealed that majority of the respondents (34.38%) reported that emergencies are handled through reception. This was followed by 32.81% of who claimed that emergencies are handled through definite treatment. Fifteen participants forming 23.44% of the care providers sample reported that emergencies are handled in the emergency room whilst the rest (9.38%) indicated that traffic emergencies are handled by consultation. On the number of staff on duty at a time, 29.69% of the care providers reported that two care providers are often on duty at a time. 46.88% of the participants reported that between 2 – 4 staff are often on duty at a time and 20.31% of the care providers mentioned that 5-7

Table 4.4: Frequency table on how emergencies are handled

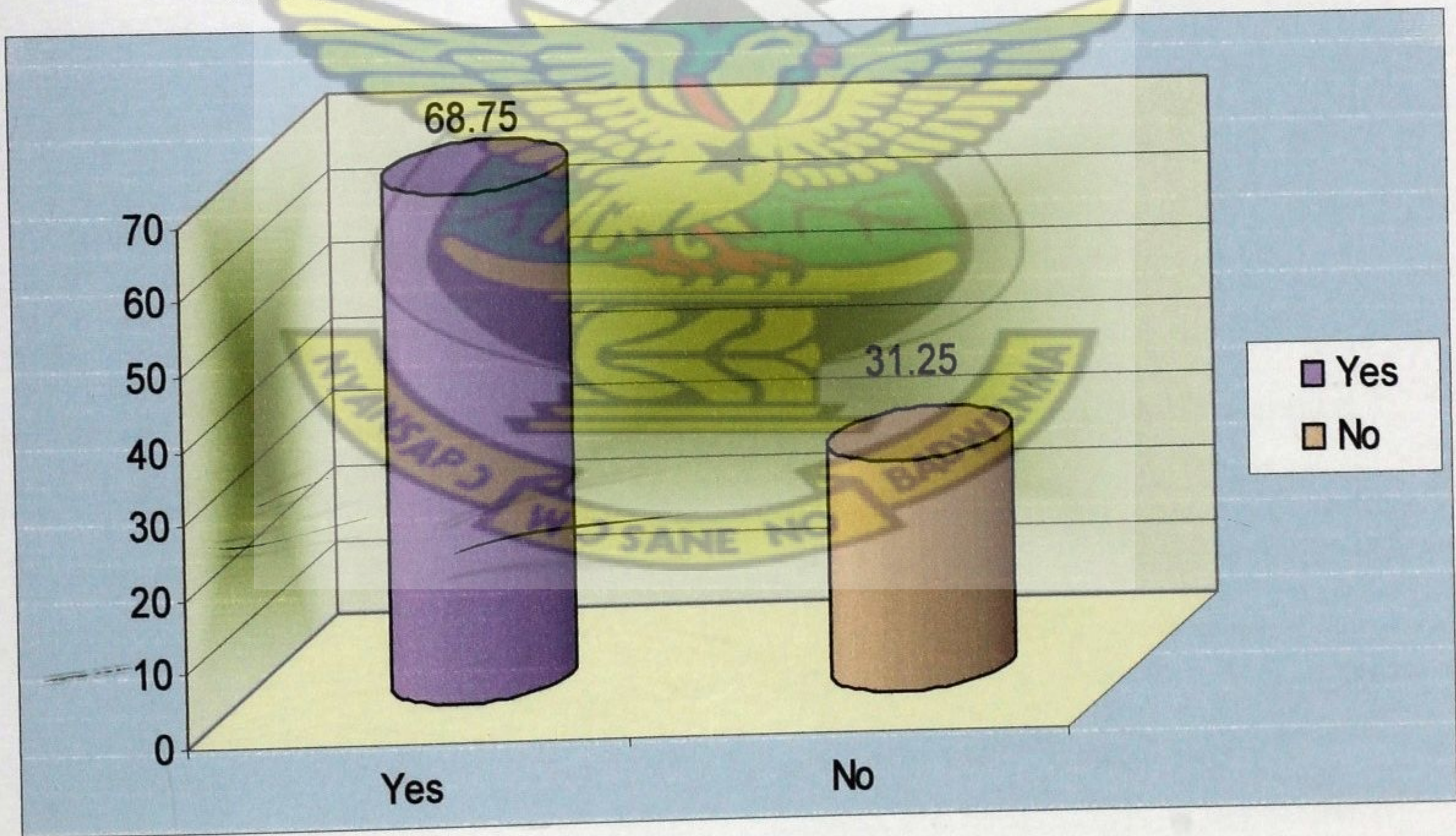
Institution or Hospital	Emergency Handling Methods				Total
	Reception	Consultation	Definite Treatment	Emergency Room	
Ridge Hospital	-	-	12	4	16
37 Military Hospital	10	-	2	4	16
Korle Bu Teaching Hosp.	10	-	3	3	16
Maamobi Polyclinic	2	6	4	4	16
Total	22	6	21	15	64

Source: Field Data, 2005

4.2.4 Special Training to Handle RT Emergencies

Another preparedness feature geared toward handling emergencies was a special training given the care providers. The figure below contains data on this.

Figure 4.3: Frequency on care providers' response to having a special training on how to handle emergencies



Source: Field Data, 2005

As shown in the figure above majority of the care providers (68.75%) reported that they had a special training on how to handle emergencies. The rest of the care providers (31.25%) however, mentioned that they do not have a special training on how to handle emergencies.

As shown in the figure above majority of the care providers (68.75%) reported that they had a special training on how to handle emergencies. The rest of the care providers (31.25%) however, mentioned that they do not have a special training on how to handle emergencies.

Those who claimed to have had a special training on how to handle emergencies reported that they had the training on the following among others; giving first aid, setting infusion and sorting victims.

4.2.5 Other Resources Available to the Study Facilities

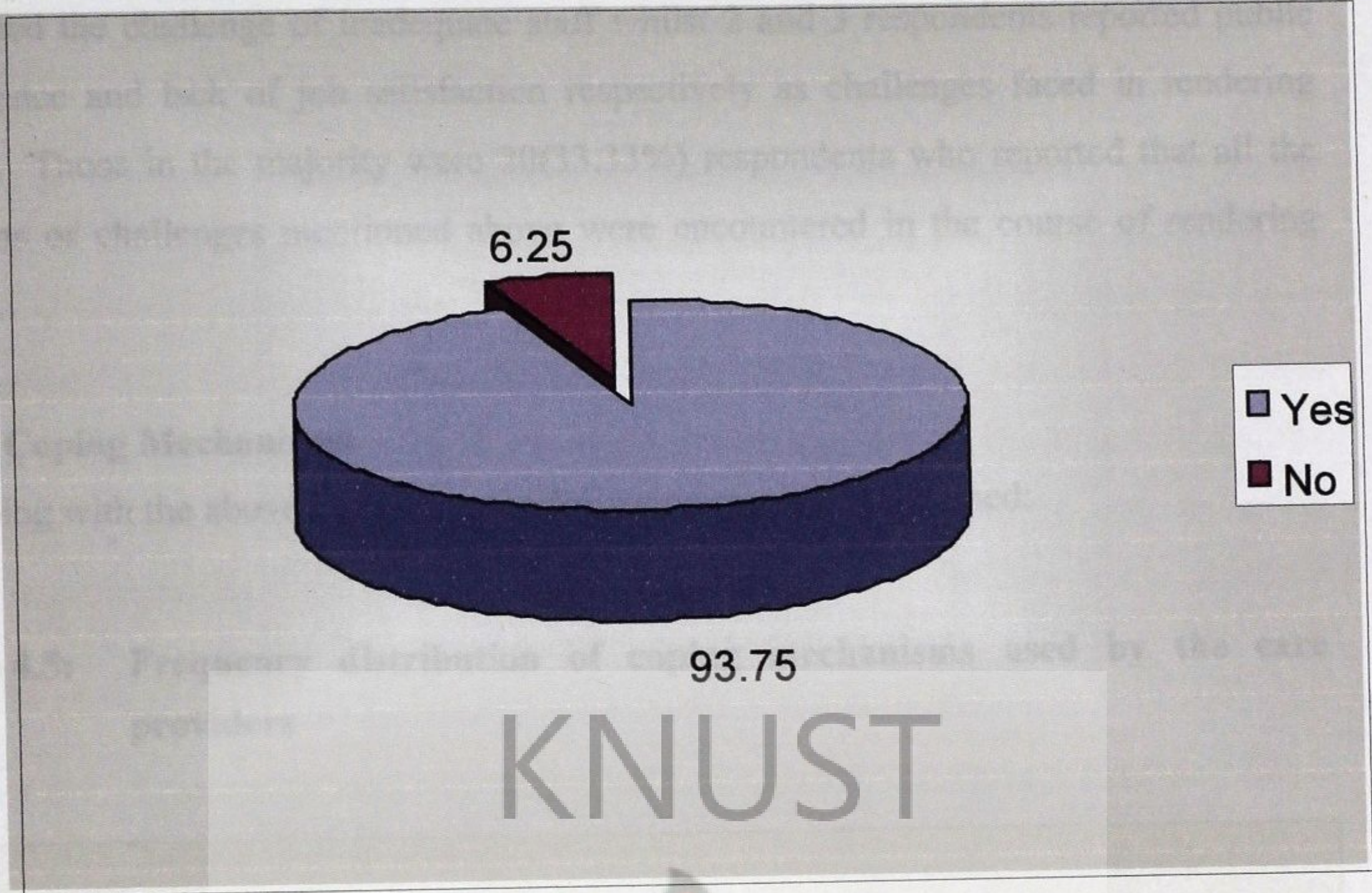
Further, findings revealed that 51.56% of the care providers reported that arrangements are made to involve off-duty staff during emergencies. The rest (48.44%) however, denied the existence of an arrangement like that. Closely related to the above, is the claim by 43.75% of the respondents that they have been called on an emergency whilst off-duty. In the rest (56.25%) responded in contrast to being called on an emergency while off-duty.

On the means of transport with which the participants respond to emergency, 20 (31.25%) reported the use of taxi, 6 (9.38%) mentioned that use of own car, 30 (46.88%) reported the use of hospital car or ambulance and only 2 (3.13%) reported the use of bus. Those who claim they respond to emergency by walking or by using any other means were 6 (9.38%).

Further, all the participants from Ridge, 37 military and Korle-bu hospitals reported in affirmative to having an ambulance available to respond motor-traffic emergencies. Those from the Maamobi Polyclinic, however, mentioned that they do not have an ambulance.

4.3 Challenges Encountered in Dealing with Motor-Traffic Emergencies

Most of the participants admitted that certain challenges are encountered in the course of rendering service including handling-traffic emergencies. Information on this is shown in the figure below. Figures 5 below revealed that 60 (93.75%) participants reported that they encounter certain challenges in the course of rendering service. The rest 4 (6.25%) however, refuted encountering challenges whilst rendering health services.



Source: Field Data, 2005

4.3.1 Types of Challenges Encountered

The challenges encountered according to the 60 respondents are shown in the table below.

Table 4.5: Types of Challenges

Inst. /Hosp.	Lack of job satisfaction	Public interfere	Inadeq. facilities	Too much pressure	Inadeq. staff	All of the above	Total
Ridge Hospital	-	-	5	3	4	4	6
37 Military Hospital	-	2	-	12	2	-	16
KBTH	3	-	3	-	5	5	16
Maamobi Polyclinic	-	-	-	1	-	11	12
Total	3	2	8	16	11	20	60

Source: Field Data, 2005

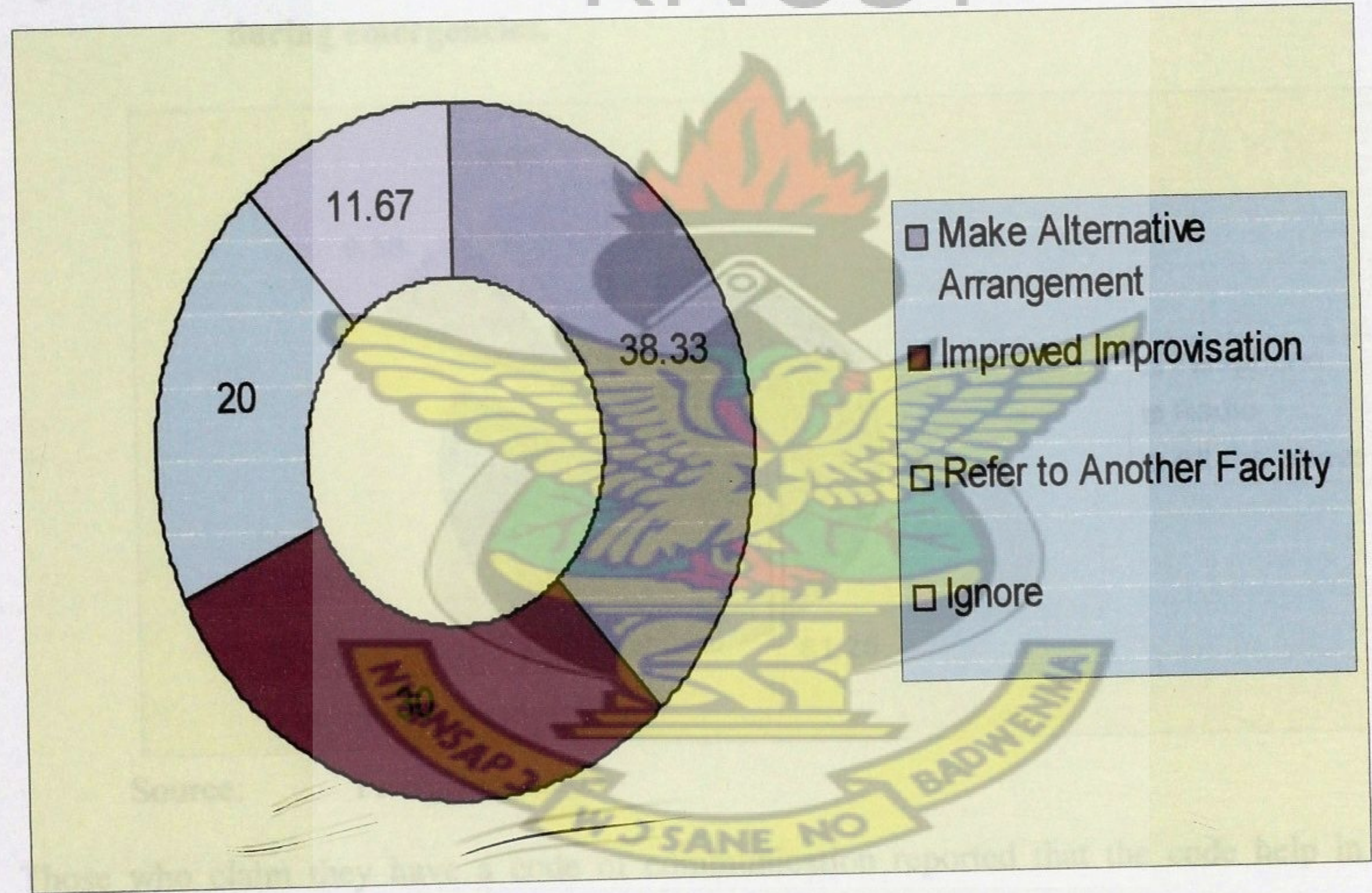
As shown in the table above, 16(26.67%) respondents claimed that they faced the challenge of too much pressure in the course of rendering service and to 8 (13.33%) respondents, it was the challenge to inadequate facilities. Eleven respondents (18.33%)

mentioned the challenge of inadequate staff whilst 2 and 3 respondents reported public interference and lack of job satisfaction respectively as challenges faced in rendering service. Those in the majority were 20(33.33%) respondents who reported that all the problems or challenges mentioned above were encountered in the course of rendering service.

4.3.2 Coping Mechanisms

On coping with the above challenges the following result was obtained:

Figure 4.5: Frequency distribution of coping mechanisms used by the care providers



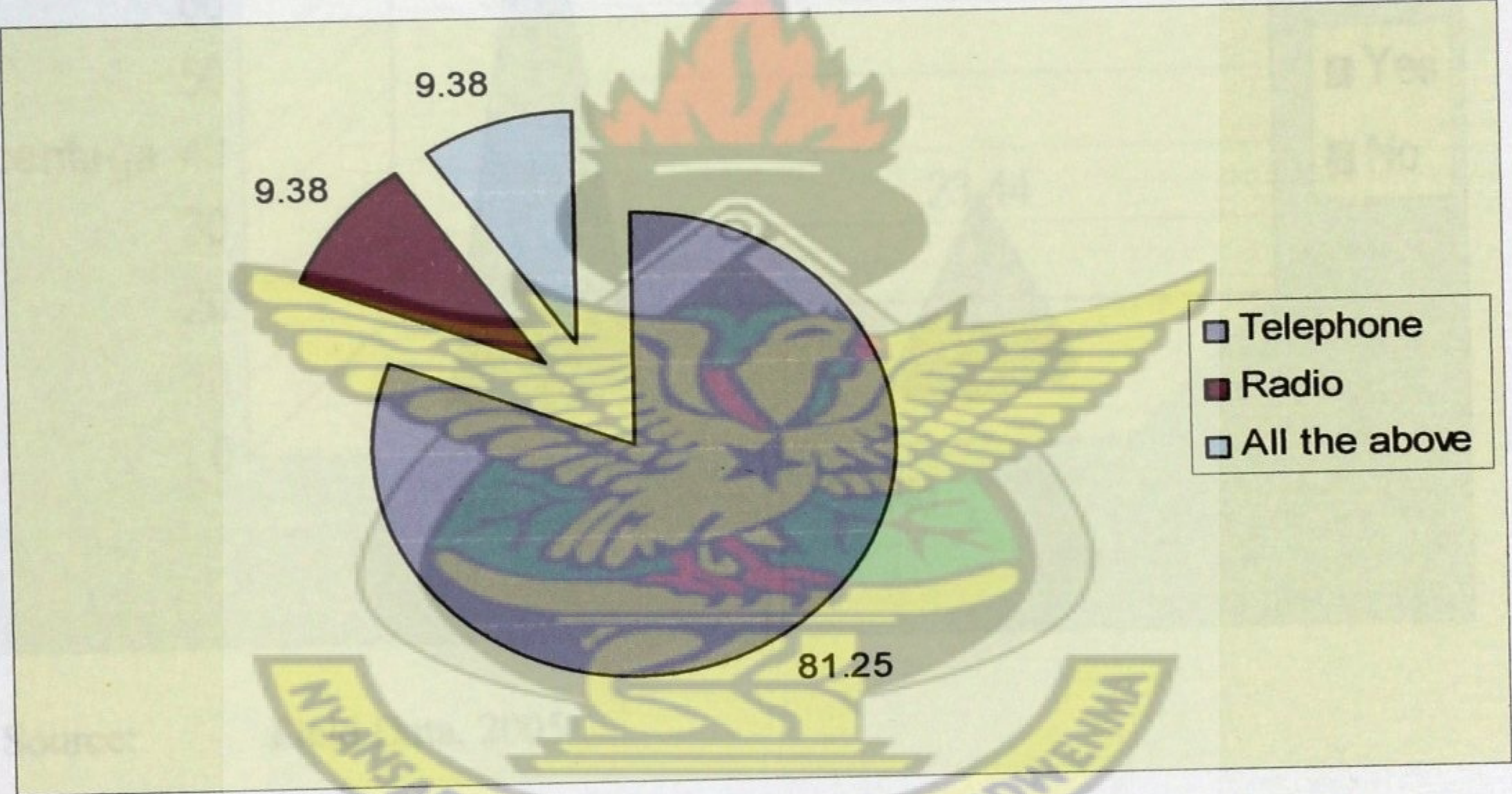
Source: Field Data, 2005

Majority of the respondents 23 (38.33%) cope with the challenges by making alternative arrangements whilst 18 (30.0%) do this by improvisation. 12(20%) participants cope with the challenges by referring the clients to another facility whilst the rest, 7(11.67%) care providers ignore the challenges. These mechanisms only indicate that the health care providers used different coping styles to handle the challenges.

4.4. Means and effectiveness of Communication Among Health Staff During Motor-Traffic Emergencies

Findings of the study indicate that different means are used in communicating to the caregivers during emergencies. The figure below depicts results on communication by the health care providers. Majority of the respondents (81.25%) reported that they communicate with colleagues using the telephone. Only 6 (9.38%) participants do this using the radio. The rest 6 (9.38%) reported that they combine both the telephone and the radio. Further, 24 (37.5%) respondents reported that they have a code of communication in case of emergencies. The rest 40 (62.5%) however, reported that they do not have any code of communication.

Figure 4.6: Frequency table on means of communication among care providers during emergencies.



Source: Field Data, 2005

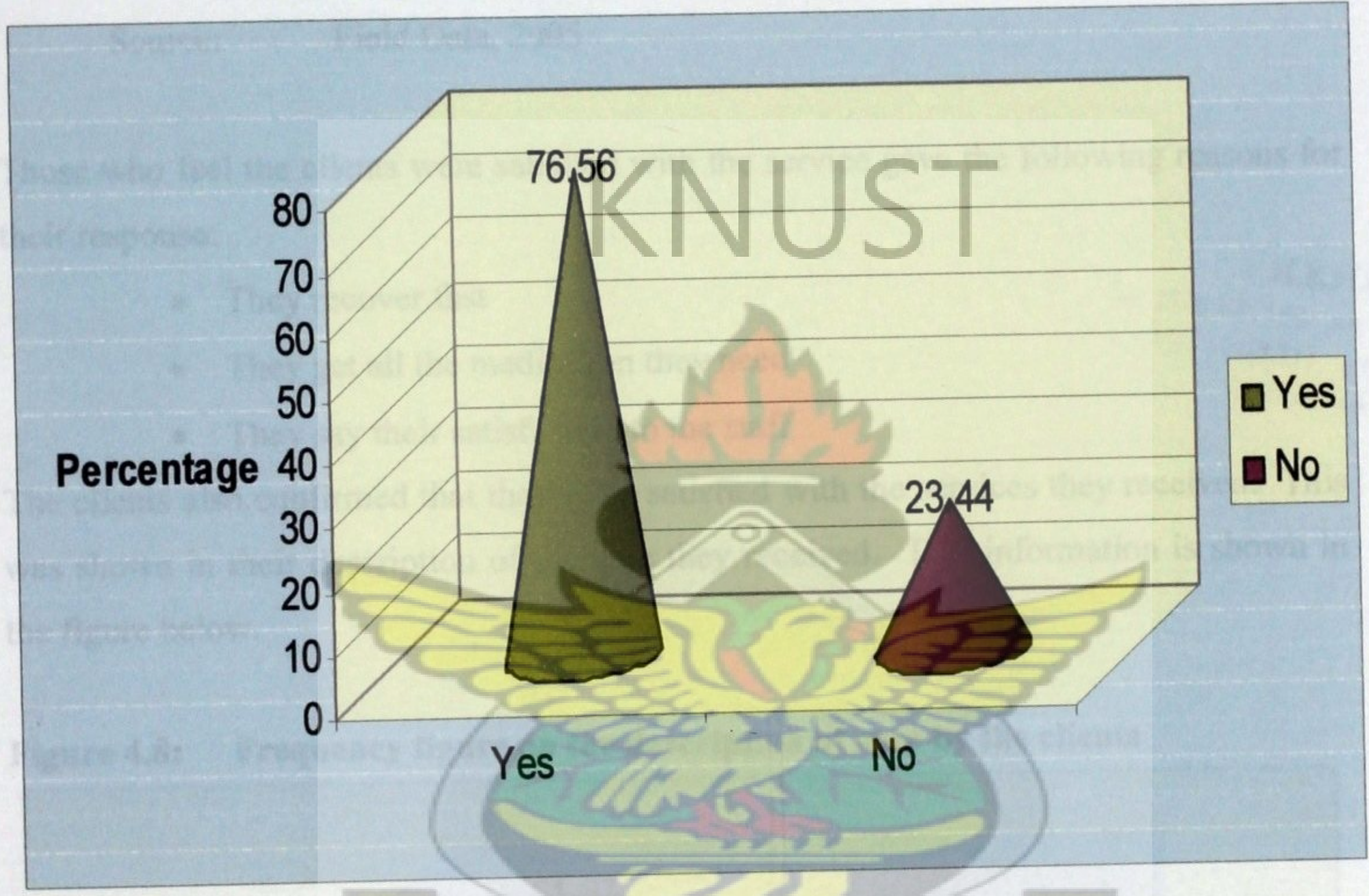
Those who claim they have a code of communication reported that the code help in different ways. To 5 (20.83%) participants, it helps in understanding the nature of emergency, 4 (16.67%) reported that the code of communication helps the workers to get to the place or facility. Eight participants (33.33%) also mentioned that the code help them to avoid public interference. The rest 7 (29.17%) reported that the code of communication help to achieve all the above benefits enumerated.

4.5 Standard Procedures in Handling Motor-Traffic Emergencies

It was also found that certain standards exist as far as a procedure to follow during

emergencies is concerned. The table below shows the response on this. Figure 4.7 revealed that 49 (76.56%) respondents confirmed that standard procedures exist to follow during emergencies. The rest 15 (23.44%) however disagreed with this. Forty-five (91.84%) respondents out of the 49 who claimed standard procedures exist reported that these standards procedures are strictly followed and 4 (8.16%) denied this.

Figure 4.7: Frequency table on the participants' response to the existence of standard procedures during emergencies.



Source: Field Data, 2005

Most care providers – 45 (91.84%) claimed that the procedure they followed helped them carry out their duties effectively. The rest 4 (8.16%) however denied this assertion.

4.6 Satisfaction of Clients with Care

Almost all the care providers were convinced that the clients were satisfied with the services rendered them. This information is presented in the table below. Figures in the table revealed that 56 (87.5%) of the care providers felt the clients were satisfied whilst eight (2.5%) do not feel this way.

Source: Field Data, 2005

Table 4.6: Frequency table on participants response on whether clients were satisfied with services rendered them.

Institution Hospital	Response		Total
	Yes	No	
Ridge Hospital	12	4	16
37 Military Hospital	16	-	16
Korle Bu Teaching Hospital	16	-	16
Maamobi Polyclinic	12	4	16
Total	56	8	64

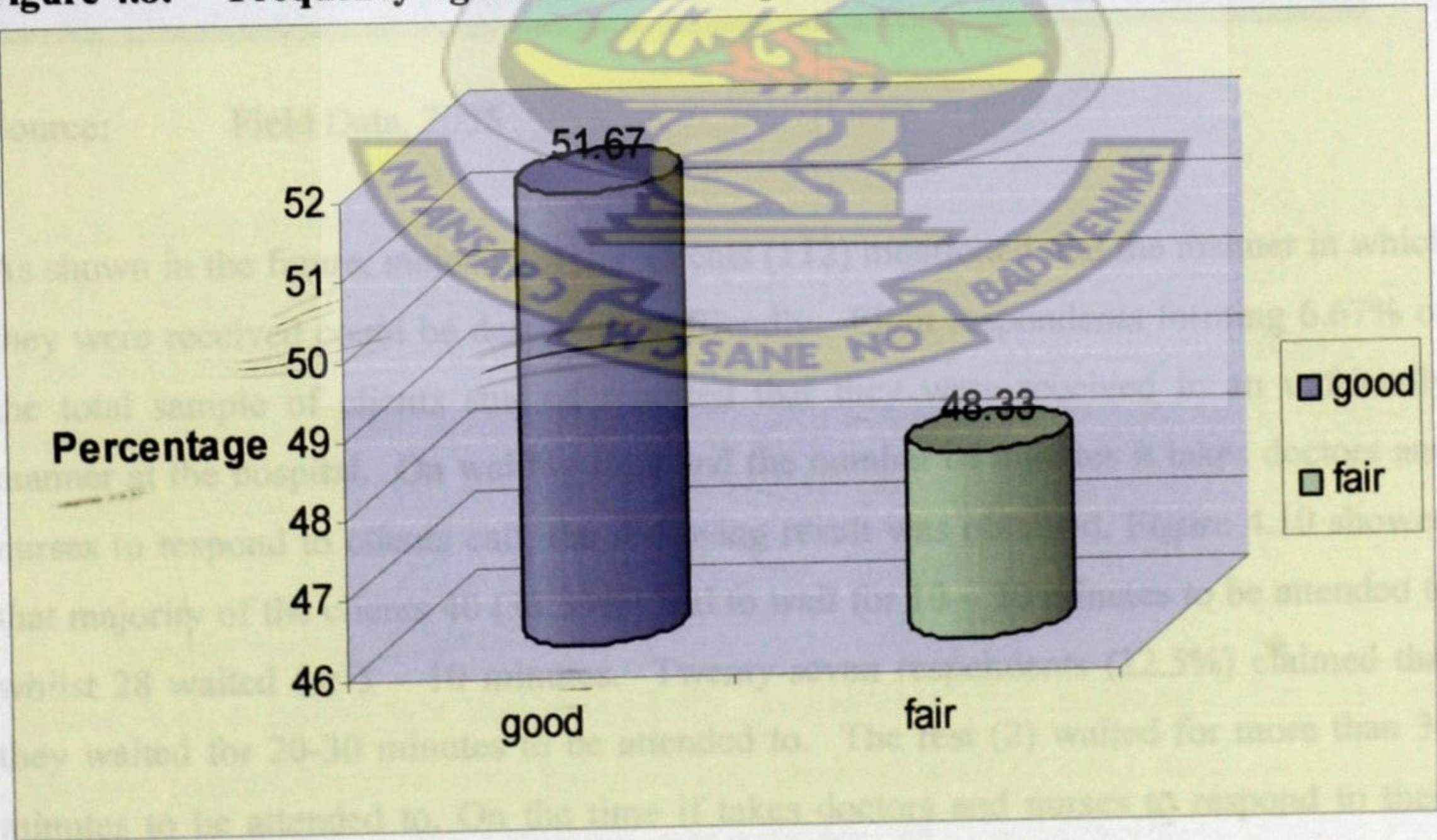
Source: Field Data, 2005

Those who feel the clients were satisfied with the service gave the following reasons for their response:

- They recover fast
- They get all the medication they need
- They say their satisfaction to the staff

The clients also confirmed that they were satisfied with the services they received. This was shown in their description of the care they received. This information is shown in the figure below.

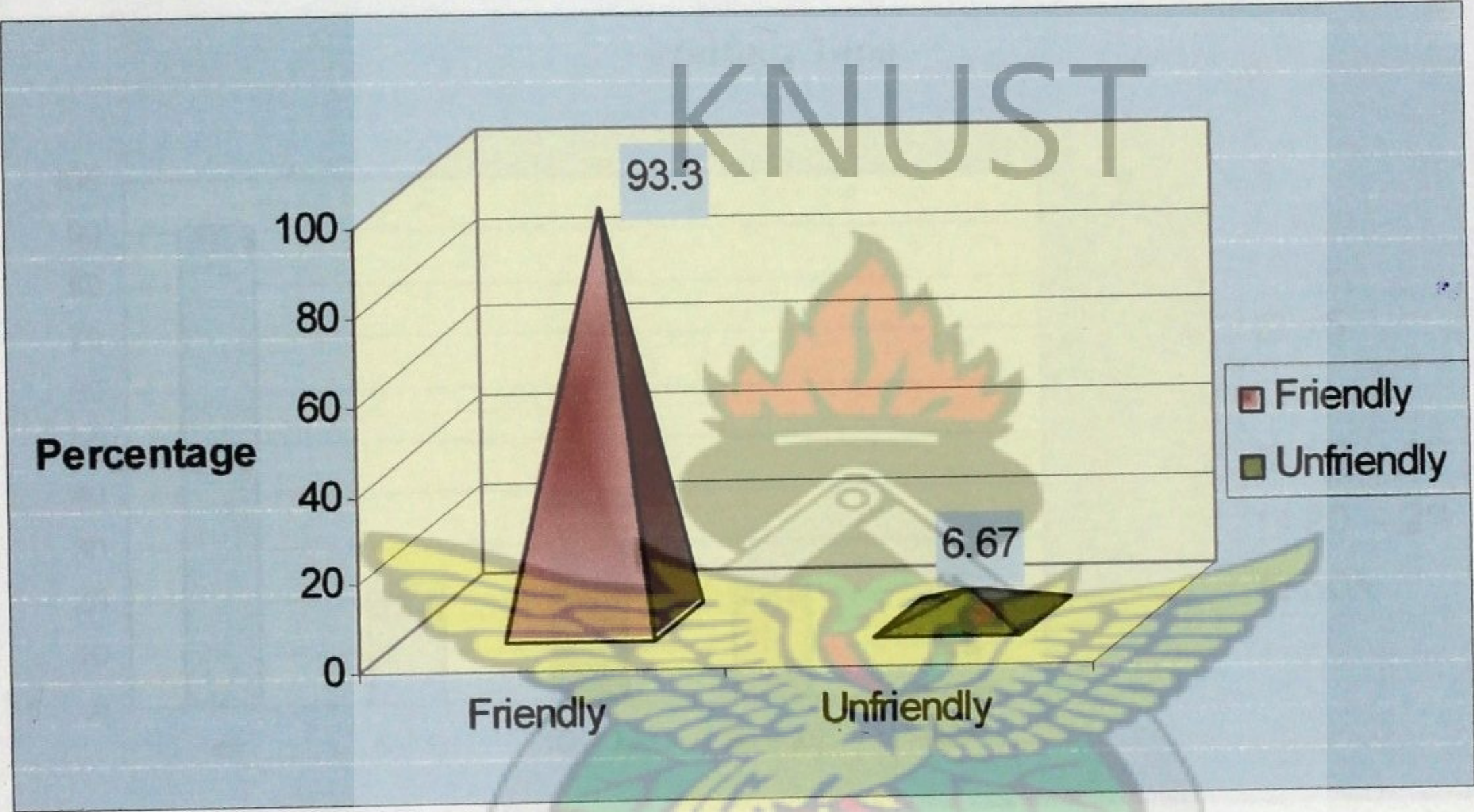
Figure 4.8: Frequency figure on the description of care by the clients



Source: Field Data, 2005

Figures in the table revealed that most participants 62 (51.67%) described the care they received as good, very good or excellent. Those who said the care they received was fair were 58 (48.33%). The majority who described the care as good may have been influenced by their experience in the health institutions. For instance, when the clients were asked about how the nurses received them at the hospital, the following result was obtained.

Figure 4.9: Frequency figure on participants impression on how they were received at the hospital.



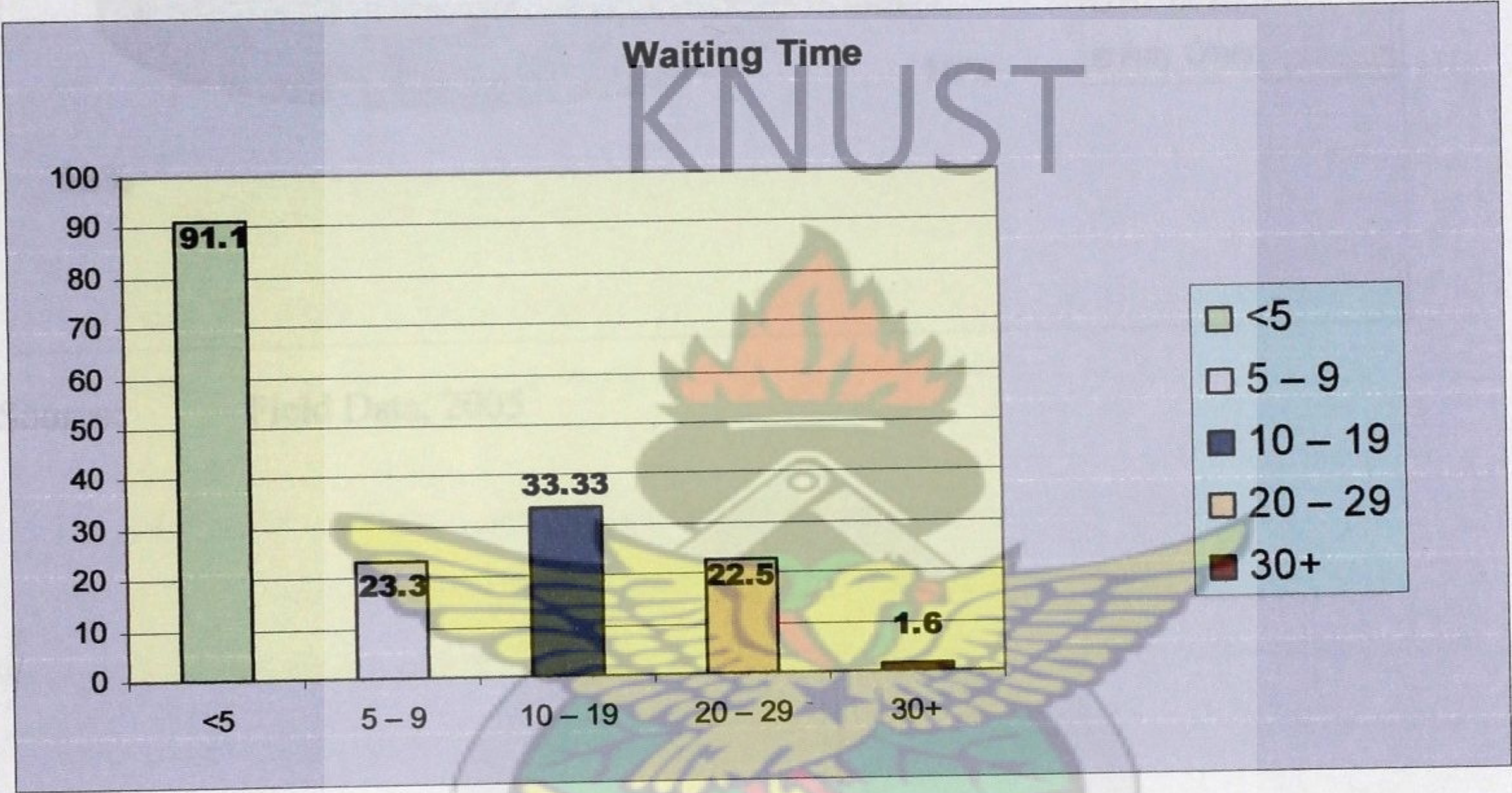
Source: Field Data, 2005

As shown in the figure, majority of the clients (112) mentioned that the manner in which they were received could be described as friendly. Eight respondents forming 6.67% of the total sample of clients studied reported that they were received in an unfriendly manner at the hospital. On waiting time and the number of minutes it takes doctors and nurses to respond to clients call, the following result was obtained. Figure 4.10 showed that majority of the clients 40 (33.33%) had to wait for 10 – 20 minutes to be attended to whilst 28 waited for 5 – 10 minutes. Twenty-seven respondents (22.5%) claimed that they waited for 20-30 minutes to be attended to. The rest (2) waited for more than 30 minutes to be attended to. On the time it takes doctors and nurses to respond to their (clients) calls, findings revealed that most clients reported that it takes 10 – 20 minutes for doctors and nurses to respond to their calls. This was reported by 62 and 54 clients

for doctors and nurses respectively.

Those who reported that it takes 20 – 30 minutes for doctors and nurses to respond to their calls were 28 and 15 respectively and 5 and 4 reported that it takes more than 30 minutes for doctors and nurses to respond to their calls. Meanwhile 25 and 47 participants reported that it take 5- 10 minutes for doctors and nurses respectively to respond to their calls.

Figure 4.10: Frequency on waiting time and time it takes doctors and nurses to respond to clients call.



Source: Field Data, 2005

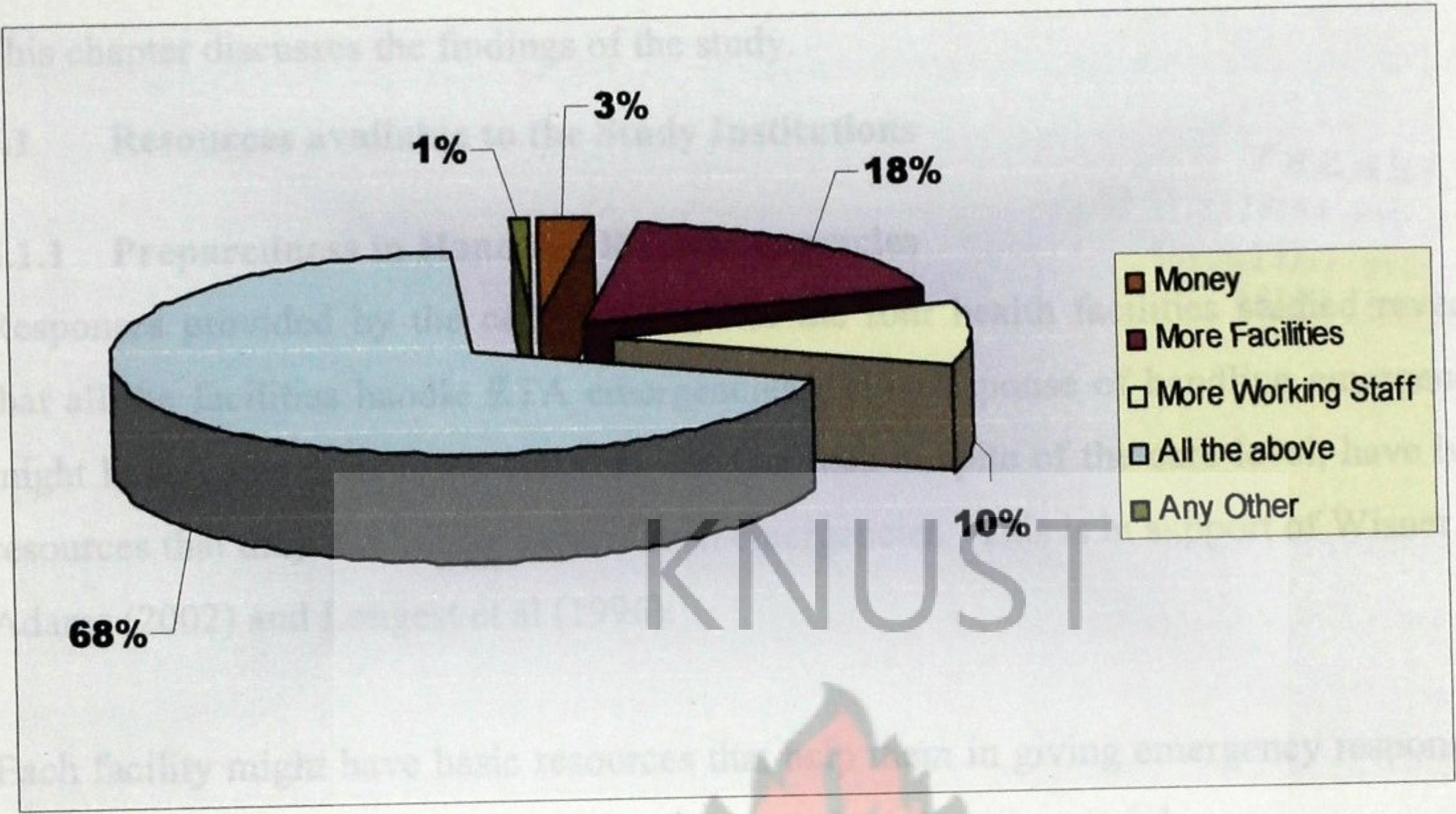
Finally, almost all the clients 107 (89.17%) reported that the attitude of the nurses was friendly. The rest, 13 (10.83%) described the attitude of the nurses as unfriendly. In spite of the fact that majority of the clients praised the nurses for doing well, they think certain measures could be put in place to make their work better. This information is presented in the table below.

4.7 Suggestions by Clients

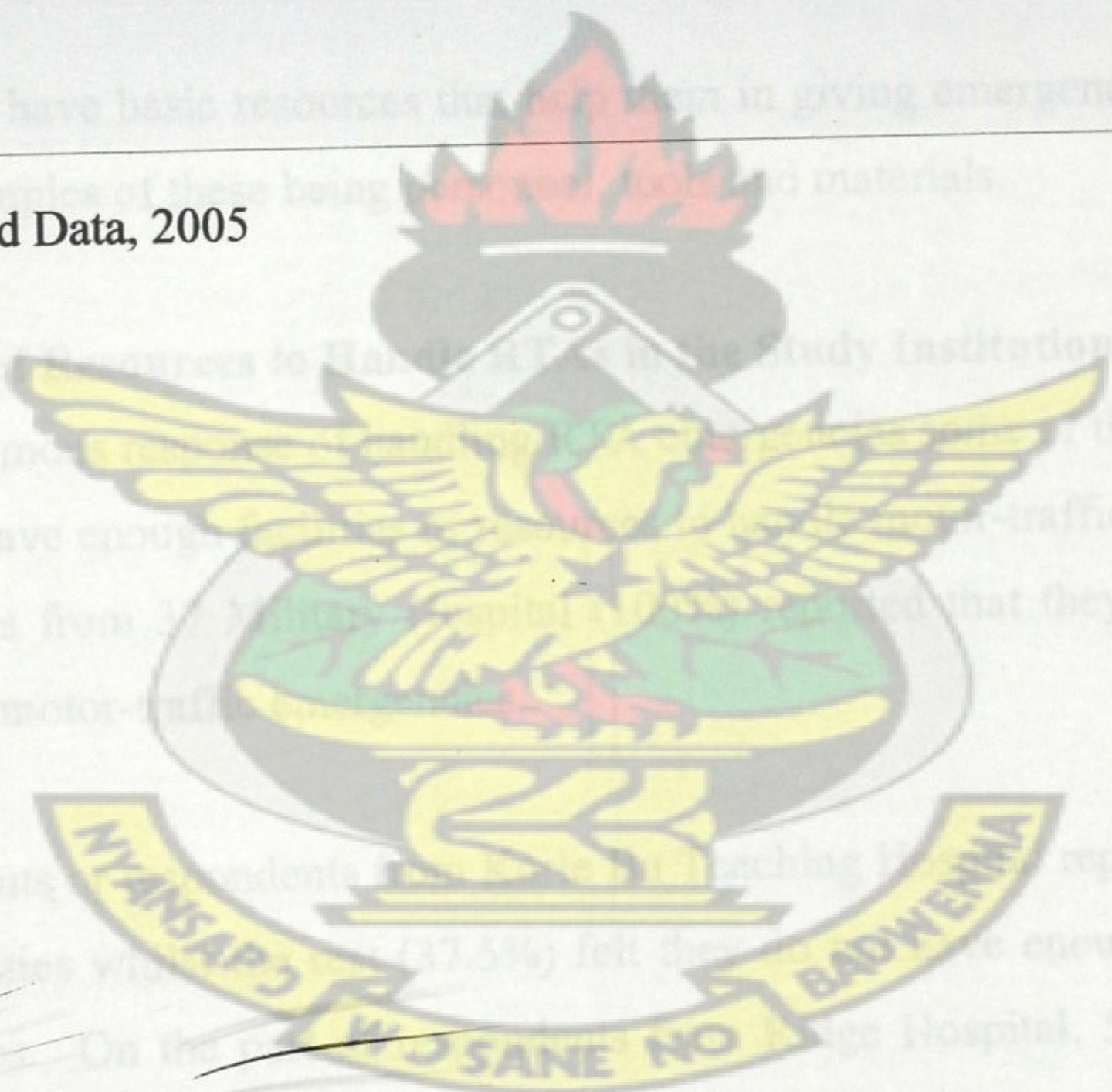
Figures 4.11 revealed that majority of the respondents (83) mentioned that the care providers needed money, more facilities and working staff to make their work better. Twenty one (17.5%) reported that the care providers need more facilities to make their work better whilst 12 claimed that the care providers need more working staff to make their work better. Those who reported they need money were only 3. The rest (one)

that any other thing may be needed by the care providers to make their work better.

Figure 4.11: Frequency figure on what clients think the care providers need to make their work better.



Source: Field Data, 2005



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CHAPTER FIVE

5.0 DISCUSSION OF RESULTS

This chapter discusses the findings of the study.

5.1 Resources available to the Study Institutions

5.1.1 Preparedness in Handling RTA emergencies

Responses provided by the care providers of the four health facilities studied revealed that all the facilities handle RTA emergencies. This response of handling emergencies might have come out of this fact that, the facilities in spite of the care level, have basic resources that they use to take care of such emergencies. This is in support of Wisner and Adams (2002) and Longest et al (1996).

Each facility might have basic resources that help them in giving emergency response to RTA victims. Examples of these being personnel, tools and materials.

5.1.2 Adequacy of Resources to Handle RTAs in the Study Institutions

In spite of the unanimous response of handling RTA emergencies some of the respondents think they do not have enough facilities or resources to handle motor-traffic emergencies. All the respondents from 37 Military Hospital (100%) reported that they have enough facilities to handle motor-traffic emergencies.

62.5% of participants or respondents from Korle Bu Teaching Hospital reported that they have enough facilities whilst the rest (37.5%) felt they do not have enough facilities to handle emergencies. On the part of respondents from Ridge Hospital, 50% confirmed having enough facilities, with the other 50% disagreeing with them.

Only 25% responses from Maamobi Polyclinic reported that they have enough facilities to handle disaster and motor-traffic emergencies. However, the rest 75% do not think they have enough facilities to do so. Some of the reasons that respondents or facilities gave for their unpreparedness were on limited health personnel, infrastructure and ambulance service. It is a fact that facilities need all that is mentioned above to be able to reach out to their RTA clients and any other emergency for that matter.

Pelge (2003), Smith et al (2000) and Dymon et al (1991) all agreed that skilled health professionals are to handle emergencies and these personnel are identified as nurses, doctors, pharmacists and many others. Wisner and Adams (2002) support the idea that ambulance service and transport are necessary to go about internal movement at least in times of emergency. Acquaye (2003) seriously advocates for infrastructure and space to effectively handle RTAs. He supported this with the fact that even if a victim will be referred to another facility; the basic emergency treatment is given so space should be made available. Most of the facilities visited expressed this.

5.1.3 How emergencies are handled

Emergency handling methods identified as reception, consultation, definite treatment and emergency room. The study revealed that majority of the respondents (34.38%) reported that emergencies are handled through reception. This was followed by 32.81% who claimed that emergencies are handled through definite treatment. Fifteen participants (respondents) forming 23.44% of the care providers sample reported that emergencies are handled in the emergency room while the rest (9.38%) indicate that traffic emergencies are handled by consultation. Bradley (1985) identified steps in handling emergencies and in RTA cases the situation is quickly assessed to know what is needed thus at the facility the situation of a case determines the handling. On the number of staff on duty at a time, 29.69% of the care providers reported that 2 care providers are often on duty at a time.

46.88% of the participants reported that between 2-4 staff are often on duty at a time and 20.31% of the care providers mentioned that 5-7 staff are on duty at a time. The rest (4.69%) reported that more than 7 staff are often on duty at a time. As observed at the facilities, there is a duty roster prepared at the facilities to enable the one in charge to adequately fix a nurse or doctor for duty at a specific time. Longest et al (1996) points out that adequate number of health staff or deficiencies in resources could lead to inefficiency in reaching out to clients, patients or victims in handling health issues therefore adequate patient-nurse/doctor ratio is important.

5.1.4 Special Training on Handling RTA emergencies.

Another preparedness feature geared towards handling emergencies was a special training given the care providers. Majority of the care providers (68.75%) reported that they had

a special training on how to handle emergencies. The rest of the care providers (31.25%) however, mentioned that they do not have any special training on how to handle emergencies.

The question to ask is what type of emergency training have they had? Can it be compared to international standard as proposed by (Acquaye, 2003) and Standfield and Hui (1998). However, the general emergency procedure they have been using is favoured by some schools of thought (Bradley 1985), who only suggested that regular workshops on emergency will help emergency unit staff to cope as already seen in all the facilities. Bradley (1985) also affirms that the general training in nursing on emergency care can be used efficiently on RTAs and the staff, with time will become skilled in it. Respondents in the facilities reported that this procedure helps them to handle emergencies well. Those who claimed to have had a special training on how to handle emergencies reported that they had the training on the following among others:

- Giving first aid
- Setting infusion
- Sorting Victims

Currently Komfo Anokye organises a yearly workshop for emergencies (Acquaye, 2003) and (Pelge, 2003).

Further findings revealed that 51.56% of the care providers reported that arrangements are made to involve off duty staff during emergencies. The rest (48.44%) however no knowledge the existence of an arrangement like that. To comment on this, a nurse that has never been called to respond to an emergency does not necessarily mean there is no arrangement to that effect. Care providers assigned to the emergency units might have been giving out their best as observed in the course of the study thus there would not be the need to involve extra hand all the time though there is pressure at times.

Closely related to the above is the claim by 43.75% of the respondents that they have been called on emergency whilst off duty. The rest (56.25%) responded in contrast to being called on an emergency while off duty.

On the means of transport with which the respondents respond to emergency 20 (31.25%) reported the use of taxi, 6 (9.38%) mentioned the use of own car, 30 (46.88%) reported the use of hospital car or ambulance and only 2 (3.13%) reported the use of bus. Those who claim they respond to emergency by walking or by using any other means were 6

(9.38%). Further all the participants from Ridge, 37 Military Hospital and Korle Bu hospitals responded in affirmative to having an ambulance available to respond to RTA emergencies. Those from the Maamobi Polyclinic however mentioned that they do not have an ambulance. It was revealed that the Polyclinic has an ambulance that was broken down. However, a hospital car is available for internal movement when it becomes necessary. The study further reveals that a small percentage of the care providers have the opportunity of using a hospital care or ambulance. Wisner and Adams (2002) pointed out that there is the need to have a car or ambulance to transport victims and personnel from one point to the other. There may also be the need to get supplies and treatment materials from source to treatment area that is the emergency unit. The ambulance service as shown in findings is not much used in Ghana. The Health Sector has now embarked on measures to make this much used.

Individuals are however operating the ambulance service currently (Acquaye, 2003). Wisner and Adams (2002) also advocates transportation of staff to accident site but Bradley (1985) disagrees with this because any other emergency could be reported at the facility while personnel are out. Besides, victims or clients can easily make their way to the facility.

Nine participants responded (14.06%) reported that motor-traffic emergencies are reported at the hospital within 5 minutes or less whilst 13 (20.3%) claim this happens within 10-20 minutes. Those who claim RTAs are reported at the facility within 21 – 30 minutes were 10(15.6%) whilst those who reported that it takes more than 30 minutes to report RTA emergencies at the hospital or facility 32 (50%). In addition 58 (90.63%) care providers claimed that clients with RTA emergencies are treated early enough which 6 (9.38%) respondents disagreed with. Reporting at the health facilities early enough depends on the distance from the facility and the help offered by people in the area or site where the accident happened.

The study revealed that sometimes the community participates by transporting victims to the facility. Acquaye (2003) suggests that in view of this, such people need some sort of training where they would at least know how to carry and position an injured accident victim.

Acquaye and Abebrese (2003) maintained that sometimes such community members have the basic knowledge in giving first aid and should be encouraged.

Finally on preparedness of the hospitals to handle motor traffic emergencies respondents reported that certain measurers are put in place to ensure that RTAs are handled promptly.

These measurers according to the respondents include:

- Staff discipline
- Ready staff
- Available staff

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Atikpui (2003) cautions that RTAs should be attended to promptly because anything could happen to a victim within the first five minutes an accident occurs. Life could be destroyed or saved.

From most of the respondents especially senior nurses and doctors in charge of the health facilities staff discipline is an important measure to take so as to build in each individual commitment to work.

Generally 42 (65.63%) respondents claimed that they can rate their institution as a facility ready to handle motor traffic emergencies which the rest 22 (34.38%) did not think so.

5.2 Challenges

5.2.1 Challenges Encountered in Handling Motor-traffic Emergencies

Most of the care providers admitted that certain challenges are encountered in the course of rendering service including handling motor-traffic emergencies. Findings revealed that 60 (93.75%) respondents encounter certain challenges in the course of rendering service. The rest, 4 (6.25%) however claimed they ever encountered any challenges in rendering health services at the emergency unit. Those that gave a negative response come from Maamobi Polyclinic where they do not experience much RTA pressure as most of the cases are referred to other facilities for handling. Most of the cases are taken directly to the higher care level facilities.

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Types of Challenges encountered by Care providers in the course of rendering service.

Constraints in handling RTAs according to care providers include lack of job satisfaction, public interference, inadequate facilities and others. 16 (26.7%) respondents claimed that they faced the challenge of too much pressure in the course of rendering service and to 8(13.33%) of the respondents it was the challenge of inadequate facilities whilst 2 and 3 respondents reported public interference and lack of job satisfaction respectively as challenges encountered in rendering service as admitted by 60 care providers. Those in the majority were 20 (33.33%) respondents who reported that all the problems or challenges mentioned were encountered in the course of rendering service. Most of these challenges were identified by WHO (2004); MOE (2000) and Quansah and Mock (1999). The ministry however adopted means of taking care of most of these situations. Despite the constraints, the care providers are doing their best as confirmed by most of their clients and observation by the researcher on the field.

5.2.2 Coping with the Challenges

As mentioned above, care providers are able to cope with the challenges they encounter while rendering health care services. Some of the mechanisms they adopt are:

- Simply to ignore whatever is happening, e.g. interference from relations of the clients.
- Referral to another facility. This becomes necessary when facilities (equipment and materials) are not available to give adequate service. This was also recommended by Acquaye (2003)
- Improved improvisation e.g. using mattress on stretchers if there is shortage of bed.
- Make alternative arrangements e.g. transferring a victim from the emergency unit to another unit to make room for new cases; calling for reinforcement.
- Protect oneself against health risks e.g. wearing of gloves, also suggested by Hui and Standfield (1998)

Majority of the respondents 23 (38.33%) cope with challenges by making alternative arrangements whilst 18 (30%) do this by improvisation though it has its own frustrations (MOE, 2000). 12 (20%) participants cope with the challenges by referring clients to another facility while the rest, 7 (11.67%) care providers ignore the challenges. In the treatment of RTA emergencies, the normal procedure followed in reporting cases according to care levels is not strictly followed. However, cases could be referred when

necessary (Acquaye, 2003). Bradley (1985) notifies aggression from relatives of accident victims, which could frustrate the care provider. Such cases could be ignored. These are however only few cases where these mechanisms are used and they indicate that care providers are prepared to use different coping styles to take care of the challenges.

5.3 Means and Effectiveness of Communication among Health Staff During Motor-Traffic Emergencies

Findings of the study indicate that different means are used in communicating to the care givers during emergencies. Majority of the respondents 52(81.25%) reported that they communicated with colleagues using the telephone. Only 6 (9.38%) of the respondents said they do this by radio and the same percentage claimed that they use both. This is in support of what Acquaye (2003) and Atikpui (2003) said that phones are more reliable and fast in times of emergency for communication. Wisner and Adams (2002) identify other means in addition to cell phones which may be reliable but not fast enough. Atikpui (2003) in his studies recounted different means of communicating emergencies among health staff and how each worked. He came out with the finding that the telephone works faster.

Further, respondents reported that they have a code of communication in case of emergencies. They formed 37.5% (24) whilst the rest 62.5% (40) however reported that they do not have any code of communication.

Atikpui (2003) and Acquaye (2003) in separate studies suggested the use of codes in communication to avoid distortions and confusion among personnel and the community. Those who claim they have code of communication reported that it helps them in different ways during RTA emergency. 5 (20.83%) claims that it helps them to understand the nature of the emergency; 4 (16.67%) reported that the code of communication helps the workers to get to the site or report at the facility. 8 (33.33%) mentioned that the use of the code helps the care providers to avoid public interference. The rest 7 (29.17%) reported that the code helps to achieve all that are mentioned above. From the findings so far communication plays a major role in RTA emergencies. However, it should be limited to only those involved in handling it (Hugue, 1989) with a unified language. He identified the Health Institutions, Government and collaborating agencies as necessary bodies to get involved.

5.4 Standard Handling Procedure in RTA.

Majority of the respondents confirmed that standard procedures exist which should be followed in handling RTAs. 49 (76.5%) respondents confirmed this while the rest 15 (23.44%) however refuted it. Out of the 49 respondents who agreed that standard procedures exist 45 (91.84%) said that these procedures are strictly followed and 4 (8.16%) disagreed with this. The 91.84% agreed that the procedure they follow help them to render their service effectively.

Further observation and interview revealed that even though the procedure followed does not meet international standard as enumerated by Acquaye (2003) and the others, the care providers are able to use the general training they had on emergency at their training schools to satisfy their clients. Bradley (1985) is then justified by saying that a special training may not be necessary but rather refers her courses and workshops could give the emergency care providers that needed skill.

5.5 Satisfaction of Clients with care provided.

Almost all the care providers are convinced that the clients are satisfied with the services rendered them. This was shown in the responses they gave when questioned on their views about the care they receive from the facilities. It was revealed from figures obtained that (87.5%) of care providers felt that clients were satisfied with their service whilst eight (12.5%) do not feel this way. Those who think the clients are satisfied with their work gave the following reasons:

- They maintain that the clients/victims recover well and fast
- They all get the necessary medication they need
- They express their satisfaction to the staff

The clients also confirmed this and graded the care they receive. According to Standfield and Hui 1998) the ultimate aim of a client taken to a health facility is to get cured be it physical or psychological. Besides, everybody has a right to healthcare (MOH, 2003). Again WHO (2004) identifies the necessary elements in trauma care that give the client the needed satisfaction and if clients claim they are satisfied it means these elements are present and are being used.

62 (51.67%) of the clients described the care they receive as good, very good or excellent. Those who said they were fairly cared for were 58 (48.33%). There was none that described the care they received was described as poor. The grading might have been influenced by their initial experience in the health institutions. However, care providers are equipped with knowledge and professional skills that they employ in taking care of patients (Whitley et al, 1996) and (WHO, 2004). These skills are all combined in appearance, approach and attitudes these by giving physical and psychological satisfaction to the victims.

Majority of the clients 112 (93.33%) mentioned that the manner in which they were received at the facility could be described as friendly whilst a minimal of 8 (6.67%) respondents claimed that they were received in an unfriendly manner at the facility. The majority confirmation points to ethics of the profession as proposed by MOH (2003). It also supports Bradley (1985) and MOH (2000) to speed up the healing process in patient care. The 8 who found the care providers might have met one frustrating situation that the care providers found themselves thus changing their mood.

Furthermore, the satisfaction with the services provided might have been influenced by initial treatment received, immediate attention from doctors and nurses and acquisition of bed upon arrival. These could be a factor.

98 (81.67%) of the clients indicated that they were given initial treatment immediately they were brought to the facility. 22 respondents said otherwise. This could be that the 22 respondents might have been referred from another facility and had already been given a first aid. It could also be that the victims were unconscious and did not know what was given to them initially. Seventy-five respondents (62.5%) claimed that the nurses and doctors attended to them immediately they were taken to the hospital. The rest 45 (37.5%) however were not immediately attended to. On whether clients were given bed upon arrival at the facility, only 36 respondents were given bed upon arrival while the rest 84 (70%) were not given. The delay in issuing bed might have been the normal procedure where clients are well observed and categorised into the care, which is followed by the next step in handling RTA emergencies. According to Zenz (1999) and Standfield and Hui (1998), at the service delivery point, medical record, is obtained in addition to other important facts. Additionally, care providers might have been making

alternative arrangements to push the in-patients to another ward to make room for the new cases.

The majority of the clients 37 (44.05%) were made to wait in wheel chairs whilst 30 (35.71%) were given a stretcher. 10 respondents mentioned that they were given mattress to lie on the floor. Only 7 were provided with other means other than stretcher, mattress and wheelchair. These point to the fact that whatever the situation is, equipment and materials are available to help for a period before a permanent solution is found. Besides, Acquaye (2003) said that there are several degrees of damage – caused to victims in RTA and some victims may be kept as outpatients or kept shortly (treated as emergency) and released.

70 (78.33%) respondents claimed that at least one doctor attended to them whilst 4(3.33%) clients responded that they were not attended to by any doctor. 29 (24.17%) reported that 2 doctors saw them whilst 17 (14.17%) claimed 3 doctors attended to them. Doctors that are allocated to a unit are not as many as nurses due to the number available to the facility. However it was observed that there is at least 2 allocated to a facility. Since they have the requisite professional training no matter the number, they give the requisite health care service (Pelge, 2003); (Smith et al, 2000).

51 (42.50%) clients were visited 2 times a day by the nurses whilst 34.17% were visited only once. The rest 23.33% were visited 3 times or more in a day. As mentioned above, the nurses visits are more frequent perhaps due to their number and the fact that they often administer drugs to clients a number of times in a day. However, this attitude points to the fact that care provider's closeness to clients creates room for interaction as proposed by Whitely et al (1996). They continue to say that the interpersonal relationship builds confidence of clients in the nurses and again speeds up the healing process.

Findings showed that majority of the clients had to wait for 10 – 20 minutes to be attended to whilst 28 clients waited for 5 – 10 minutes. These were 40 (33.3%) and 28 (23.33%) respectively. 27 (22.5) respondents claimed they waited for more than 30 minutes to be attended to. From Wisner and Adams (2002), emergency response should be kept in a state of readiness and by standards response to emergency within 5 minutes

could save a lot of lives thus response within that period (5-10 minutes) could be said to be very adequate; between 10- 20 minutes could be said to be less adequate. Anything beyond these are inadequate and signal disaster. However, response to a victim at times depends on severity of the accident (Zenz, 1999). However, Bradley (1985) maintains that the emergency unit should be "24 hours a day" ready.

On the time it takes doctors and nurses to respond to clients' calls, findings revealed that it takes 10 – 20 minutes for doctors and nurses to respond to clients' calls. 62 and 54 clients reported this for doctors and nurses respectively. Those who said it took doctors and nurses 20 – 30 minutes to respond to a call were 28 and 15 respectively and 5 and 4 reported that it takes more than 30 minutes to respond their calls. However, almost all the clients 107 (89.17%) reported that the attitude of the care providers is friendly and only 13 (10.83%) describe their attitude as unfriendly on the job. Delay in responding to a client's call could be taken that if the care provider is attending to a client, it takes some time to respond to another client.

In case of doctors' response, there were times they have to be called from outside the unit to see a client.

5.6 Suggestions by Clients

Findings showed that majority of the respondents (83) mentioned that the care providers need money, more facilities and working staff to make their work better. Twenty-one (17.5%) reported that the care providers need more working staff to make their work better. Those who spoke about money were only 3 (2.5%). Only one mentioned one other thing that some care providers already do. Bradley (1985) and Acquaye (2003) advocate for regular workshops and training for personnel.

CHAPTER SIX

6.0 CONCLUSION AND RECOMMENDATIONS

6.1 Conclusions

The study aimed at assessing the general preparedness of the health sector to handle Road Traffic Accident Emergencies. This study was carried out in selected health institutions of varying levels in Accra Metropolis. The findings revealed that RTAs form 50% - 70% of the total emergency cases recorded at the facilities. Based on the findings, the following conclusions are drawn.

Generally health institutions are prepared to handle RTAs. The institutions, however, need a few things to put in place to make them do better than they are doing presently. This conclusion is drawn from the responses given by the care providers and observations carried out. 3 (75%) of the facilities reported that they have enough facilities to take care of RTA emergencies except one who thinks that they do not have everything in place even though they give the basic attention to clients.

Resources

The facilities are able to handle RTA victims with the available space, equipment and materials they have. They are able to improvise when the cases are many.

Infrastructure is a problem in many facilities. The units are not large enough to accommodate victims. This makes the units over crowded when cases are many since some sort of first aid should be given if the client has to be referred to another facility.

Very important equipment and items should be available to be used to handle RTA cases and if not available will make quality service delivery difficult. A typical example of this is beds. Clients end up getting their own. For example, they buy their own mattress to put on the floor. Community clinics are not very well equipped so most cases are referred to other facilities increasing the workload at the referral facilities. RTA care delivery is off and on sight and certain facilities like the ambulance service will be very necessary. Ambulance services in the facilities are rather poor. There is no organized system of ambulance service where any RTA case can be easily communicated to them to quickly transport the victims to the facility. None of the facilities have a doctor's car where serious accidents victims could be attended to when being transported to the facility.

The facilities have quite a good number of nurses and doctors allocated to the emergency unit who are able to give their best to their clients. They are able to have a good interpersonal relationship with clients as testified by many that the nurses and doctors are friendly (89.17%).

Challenges

The health personnel face quite a number of challenges both outside and within, in the course of carrying out their duty, however, they are able to device means to cope with it. The ultimate in health care is for the clients to be well and satisfied with the care being given (Standfield & Hui, 1998).

Communication

Communication is however effective among health personnel when it comes to seeking assistance from other units within the facility in case of RTA emergency. However there is the need for improvement.

Standard Procedure

Though the care providers do not have any special training in RTAs to meet International Standards but they are able to use their basic knowledge in nursing to take care of RTA emergencies.

Client Satisfaction

Majority of the clients (67.5%) expressed their satisfaction about the service they receive from the nurses in various ways. Despite all these, there is the need to put a few things in place to improve upon the general RTA care and service.

6.2 Recommendations.

To The Ghana Health Service

1. Facilities need to be expanded to take care of very important activities. Equipment such as beds; stretchers and wheel chairs are necessary for every facility to have at the emergency unit. Most of the respondents 81% are not given bed immediately when they

report at the facility. This could be avoided by the expansion of infrastructure and equipment. Emergency units in all facilities should be expanded to meet their demands. Some facilities have large areas of land, which could be developed and put to use. An example of this is Ridge Hospital. Over crowding at the unit could bring about transfer of diseases and this could be avoided if the unit is expanded. It would also facilitate free movement of personnel within the facility.

2. Community clinics should be developed. The Health Ministry should advocate for enough funds to develop and equip the polyclinics to take care of such emergencies as RTAs to reduce the pressure on the major facilities. This may come from government and agencies that the hospitals may appeal to.

3. The ambulance service system should improved. An organized ambulance system with effective communication system to meet the demands of RTA emergency. For now it is important that the number of ambulances be increased in the facilities especially for emergency unit so as to avoid delays in communication and movement. An organized ambulance service can make-work at the RTA unit bearable. There should also be a doctor car with trained health staff in it to take care of RTA cases.

4. Personnel allocation to the health facilities is rather low which might have explained why responses to 'patient calls' delay at times. Apart from attitude it could be pressure of work on very few people. Increase in the number of personnel will relieve the few off the pressure.

5. Ghana Health Service should build on effective system of communication between itself, Government and collaborating agencies. This will make response in RTA fast.

To The Ministry Of Health

The Ministry of Health should therefore enrol more students in their training schools. Certificates B nurses who have been on the field for some time and have some experiences could be quickly trained to fill in. These nurses could work under experienced state registered nurses for guidance. RTA emergencies due to its peculiar nature needs special training to handle cases. In the immediate future, people should be trained towards this. However it is suggested that most people who are already working in the unit and handling RTA should update themselves with strategies to adopt and meet the client demand (Bradley, 1985).

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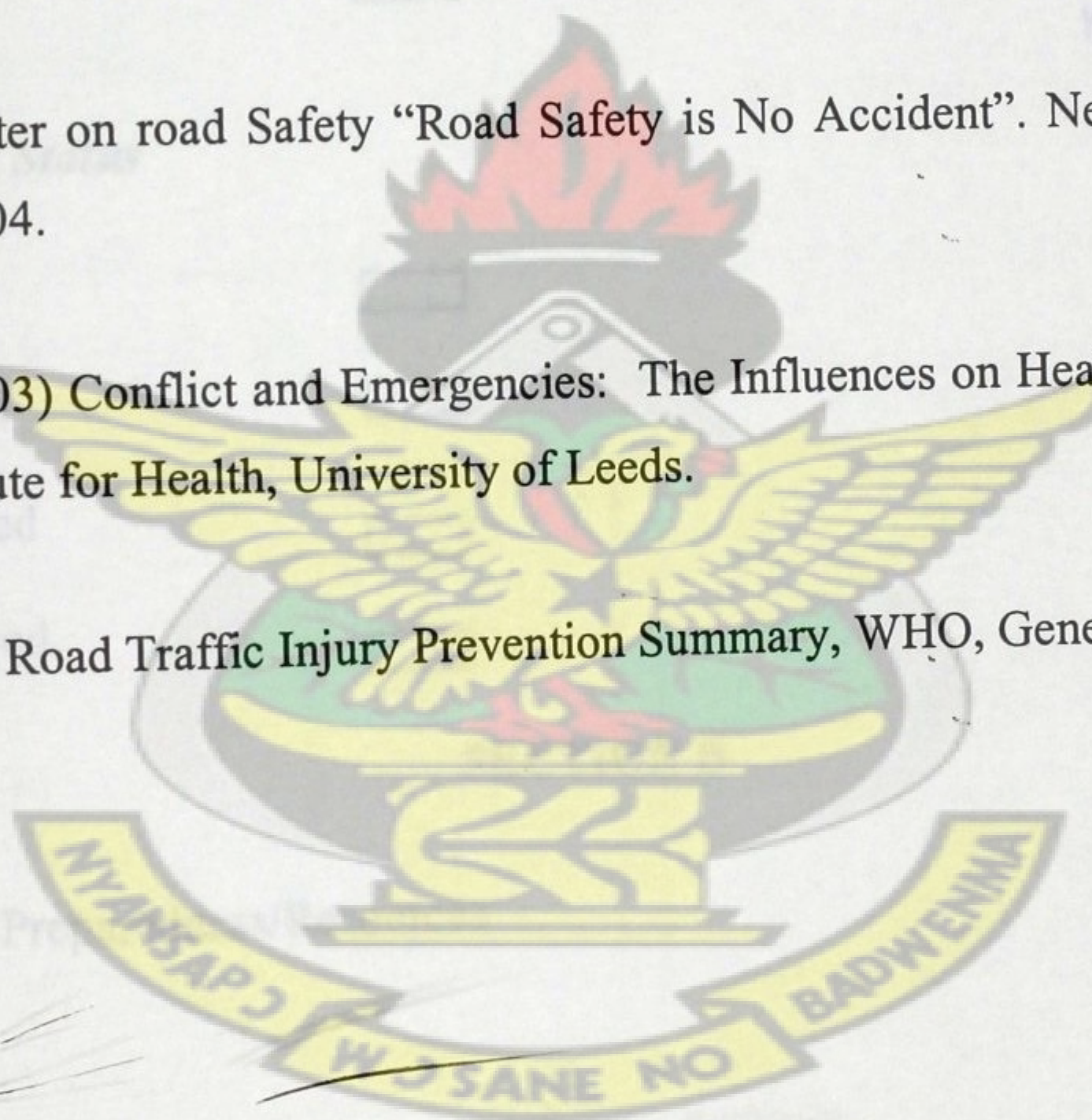
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APPENDICES

F

KNUST



10

10

Status

☐

☐

☐

☐

SECTION B

Preparedness/Resources

3. a. Did the motorist use his own vehicle ☐

-

-

-

- 10

- 10

2. How long did it take you from the accident point to get to the facility?

a. less than 5 ☐

b. 5 – 14 mins ☐

c. 15 – 24 mins ☐

d. 25 - 34 mins ☐

3. Please tell me the way you were received by the Nurses.

a. Normal ☐

b. Friendly ☐

c. Unfriendly ☐

d. Carelessly ☐

4. Did you receive any initial treatment from the nurses when you were initially brought to hospital on health facility?

a) Yes ☐ No ☐

b) Explain further:

.....

.....

.....

.....

.....

5. a. Did the nurses and doctors attend to you immediately you were brought to the hospital?

Yes ☐ No ☐

b. What was the waiting time?

i. less than 5 ☐

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KUMASI-GHANA

ii. 5 – 14 mins ☐

iii. 15 – 24 mins ☐

iv. 25 - 34 mins ☐

6. How many nurses attended to you the first time you were brought here?

a. None ☐

b. One ☐

c. Two ☐

d. Three ☐

7. How many doctors attend to you the first time you were brought?

a. None ☐

b. One ☐

c. Two ☐

d. Three ☐

8. How often do the nurses visit you in a day to see how you are faring in a day?

a. None ☐

b. Once ☐

c. Twice ☐

d. Thrice or more ☐

9. How many times does a doctor visit you in a day to see how you are faring in a day?

a. None

b. Once

c. Twice

d. Three or more

e. Those on duty

10. Were you given a bed immediately you arrived at the hospital?

13. Yes No

11. If No, what were you put on

a. Mattress on floor

b. Stretcher

c. In a wheel chair

d. Standing while waiting

e. Sat on a bench

f. Any other

12. Anytime you call a doctor, how fast does he respond to your call?

i. less than 5

ii. - 14 mins

iii. 15 - 24 mins

iv. 25 - 34 mins

13. Anytime you call a nurse how fast does the nurse respond to your call when you need or call them?

i. less than 5

ii. 5 - 14 mins

iii. 15 - 24 mins

iv. 25 - 34 mins

Client Satisfaction

14. What is the attitude of the nurses to you as a patient?

a. Normal

- b. Friendly ☐
- c. Unfriendly ☐
- d. Rude ☐

15. What is the attitude of the doctors to you as a patient?

- a. Normal ☐
- b. Friendly ☐
- c. Unfriendly ☐
- d. Rude ☐

16. What do you think the care providers need to make their work better? (multiple response)

.....

.....

b. Give reasons for your answer.....

.....

17. a. Are you given all medications you are supposed to receive at the hospital?

Yes No

b. If Yes, how do you pay, if no how do you get it?

.....

.....

18. Generally, what can you say about the care the nurses and doctors have been giving you since you came?

- a. Excellent
- b. Very Good
- c. Good
- d. Fair
- e. Poor

APPENDIX 2

QUESTIONNAIRE FOR CARE PROVIDERS (NURSES AND DOCTORS)

SECTION A

Name of Institution/facility:

Type of Institution: Quasi ☐

Regional ☐

District ☐

Teaching ☐

Community ☐

SECTION B

A. General Preparedness/Resources

1. What is your ward capacity of patient intake? (*Tick as appropriate*)

a. 20 – 29

☐

b. 30 – 39

☐

e. 40 – 49

☐

d. 50 or more

☐

2. Do you always have the place full of patients?

a. Yes

☐

b. No

☐

c. At Times

☐

3. What do you do if victims are more than your room capacity? (multiple response)

.....

.....

.....

4. Does your institution handle motor-traffic emergencies?

a. Yes ☐

b. No ☐

ii. If yes, how do you handle it?

a. Reception ☐

b. Consultation ☐

c. Definite treatment ☐

d. Any other ☐

iii. If No, why?

a. Lack of or inadequate facilities ☐

b. Inadequate staff/personnel ☐

c. No emergency drugs/non-drugs ☐

d. Any other ☐

5. How many nurses are on duty at a specific time? (nurses)

- A 1 – 2
B 3 – 4
C 5 – 6
D 7+

Day	Night

6. How many doctors are usually on duty at a time?

- A 1 – 2
B 3 – 4
C 5 – 6
D 7+

Day	Night

7. Have you had any special training on how to handle emergencies?

a. Yes ☐

b. No. ☐

i. If Yes what type of training?

a. giving first aid ☐

b. setting infusions ☐

c. sorting victims ☐

d. positioning victims when transporting them ☐

e. any other ☐

8. Is there any arrangement to involve off-duty staff during emergencies?

a. Yes ☐

b. No. ☐

9. Have you ever been called on an emergency while off-duty?

a. Yes. ☐

b. No. ☐

10. By what means of transport do you respond to an emergency call?

a. Taxi ☐

b. Own car ☐

c. hospital car ☐

d. bus ☐

e. any other ☐

11. i) Do you have an ambulance in the facility?

a. Yes ☐

b. No. ☐

ii) If yes how many? ☐

iii) If yes, do you have it readily available for motor traffic emergencies?

a. Yes ☐

b. No. ☐

12. Can you say that you have enough facilities to handle a disaster or emergency such as motor-traffic, as a hospital or clinic?

a. Yes ☐

b. No. ☐

13. Can you say that as health facility you can be rated for emergency preparedness?

a. Yes ☐

b. No. ☐

B. Communication

14. How fast are motor-traffic emergencies reported at the hospital?

- a. less than 5 ☐
- b. 5 – 9 mins ☐
- c. 10 – 14 mins ☐
- d. 15 - 19 mins ☐
- e. 20 – 24 mins ☐
- f. 25 – 29 mins ☐
- g. 30 mins + ☐

15. i) Do you treat your clients early enough when they report with motor-traffic emergencies?

- a. Yes ☐
- b. No. ☐

ii) If yes, how early

- h. less than 5 ☐
- i. 5 – 9 mins ☐
- j. 10 – 14 mins ☐
- k. 15 - 19 mins ☐
- l. 20 – 24 mins ☐
- m. 25 – 29 mins ☐
- n. 30 mins + ☐

16. What measures are there in place to ensure that motor-traffic emergencies are handled promptly in your institutions? (multiple response)

.....

.....

.....

17. In case any emergency such as motor-traffic, how do you communicate with each other? (multiple response)

.....

.....

18. Do you have any code of communication in times of emergency?

- a. Yes ☐
- b. No. ☐

ii) If Yes how does this help you? ? (multiple response)

.....

.....

.....

C. Steps in handling disaster

19. Is there any standard procedure to follow when handling emergencies?

a. Yes

b. No.

ii) If yes, is this strictly followed in any time of emergency?

a. Yes

b. No.

20. Can you say that the procedure you follow in handling emergencies help you to carry out your duty effectively.

a. Yes

b. No.

D. Client Satisfaction

21. Can you say that your clients are satisfied with the service you render to them?

a. Yes

b. No.

ii) Give, what makes you think so? (multiple response)

- a. lack of job satisfaction/ no incentive ☐
- b. public interference ☐
- c. inadequate facilities/equipment ☐
- d. too much concern at the unit ☐
- e. inadequate staff ☐
- f. any other ☐

22. How fast do you respond when clients need your service while they are at the facility?

o. less than 5

p. 5 – 9 mins

q. 10 – 14 mins

r. 15 - 19 mins

s. 20 – 24 mins

t. 25 – 29 mins

u. 30 mins +

23. Are you able to give the victims any type of assistance they need?

a. Yes

b. No.

E. Challenges

24. i) Do you identify any challenges that you face at the facility in the course of rendering service when there is emergency?

a. Yes

b. No.

ii) If Yes, what are they?

a. lack of job satisfaction/ no incentive

☐

b. public interference

☐

c. inadequate facilities/equipment

☐

d. too much pressure at the unit

☐

e. inadequate staff

☐

f. any other

☐

25. How are you able to cope with these challenges you face? (multiple response)

.....

.....

.....

.....

26. Generally, can you rate yourself as a facility that is prepared to handle emergency of any type?

- a. Yes
- b. No.

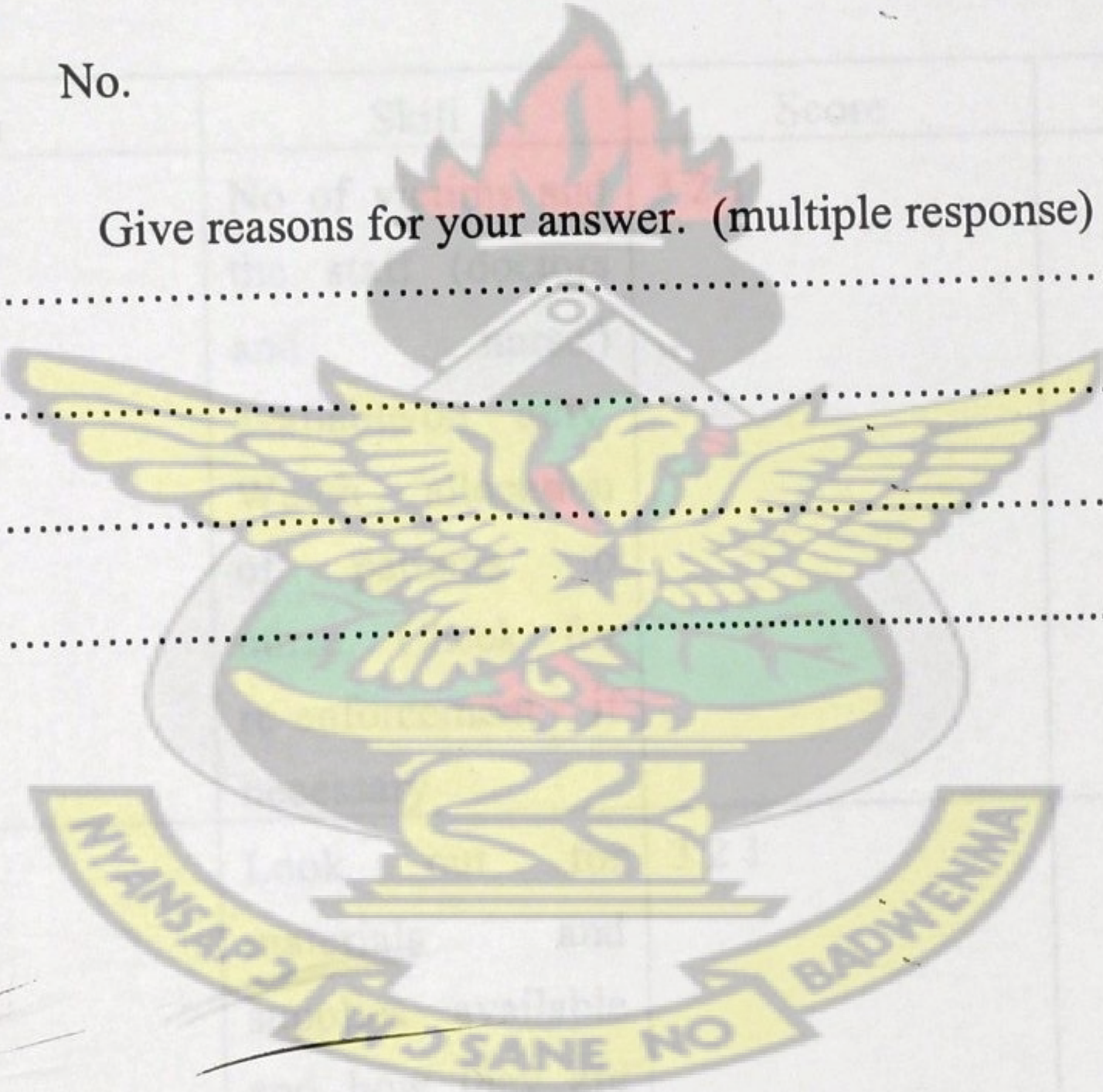
ii) Give reasons for your answer. (multiple response)

.....

.....

.....

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APPENDIX 3

CHECKLIST FOR OBSERVATION DURING RTA EMERGENCIES

- Scores and Interpretations

3- Well done /very adequate

2- Satisfactory/adequate

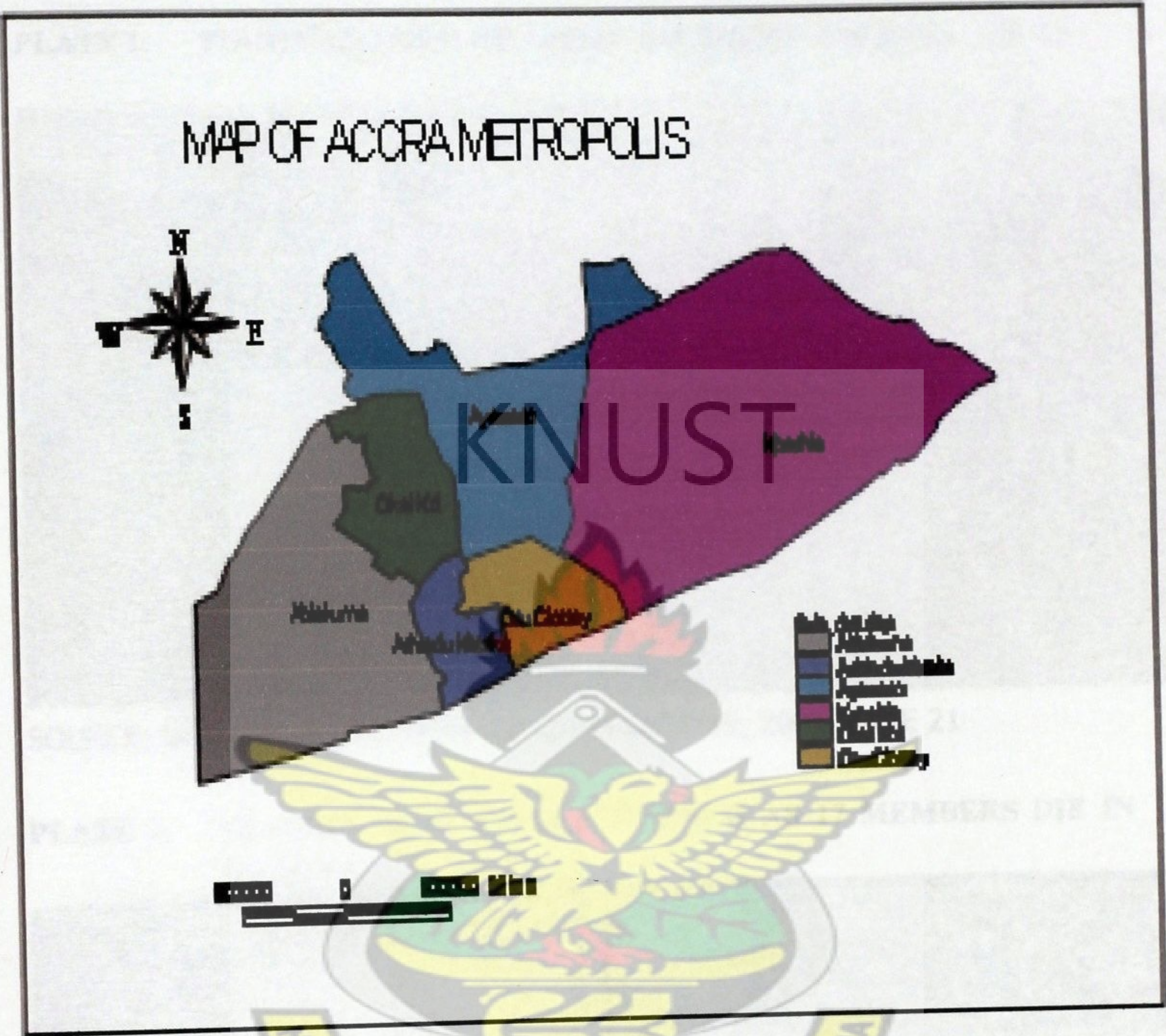
1- Need improvement

n/a- not applicable/not available.

Function	Skill	Score	Remarks
Personnel	No of victims and the staff (doctors and nurse) available/on duty. Watch allocation of patients to nurse. Check for re-enforcement if necessary	3 2 1	
Treatment	Look out for materials and supplies available and how they are used to take care of victims. Take note of improvisation if any. Ask questions for clearance	3 2 1	

Function	Skill	Score	Remarks
Facilities/Accommodation	Available beds and space at the units, wheel chairs, stretchers and other facilities used. Waiting room or space for clients/relations. No of ambulance and ambulance service. Watch internal movement.	3,2,1	
Waiting time	Watch time lapse between reporting time and treatment or consulting time.		
Handling of Cases	Look out for standard steps or procedure in handling victims. Watch attentively handling of victims pain and distress. Ask question when necessary. Look out for improvement or pain relief.		
Interpersonal Relationships/Attitudes.	Engaging victims in a chat or not. Response to client need/assistance to victim.		

APPENDIX 4
MAP OF ACCRA METROPOLIS



APPENDIX 5

PLATES

PLATE 1: FOUR CHILDREN KILLED IN ACCIDENT – NIMA IN ACCRA



SOURCE: DAILY GRAPHIC, MONDAY SEPTEMBER 19, 2005. PAGE 21

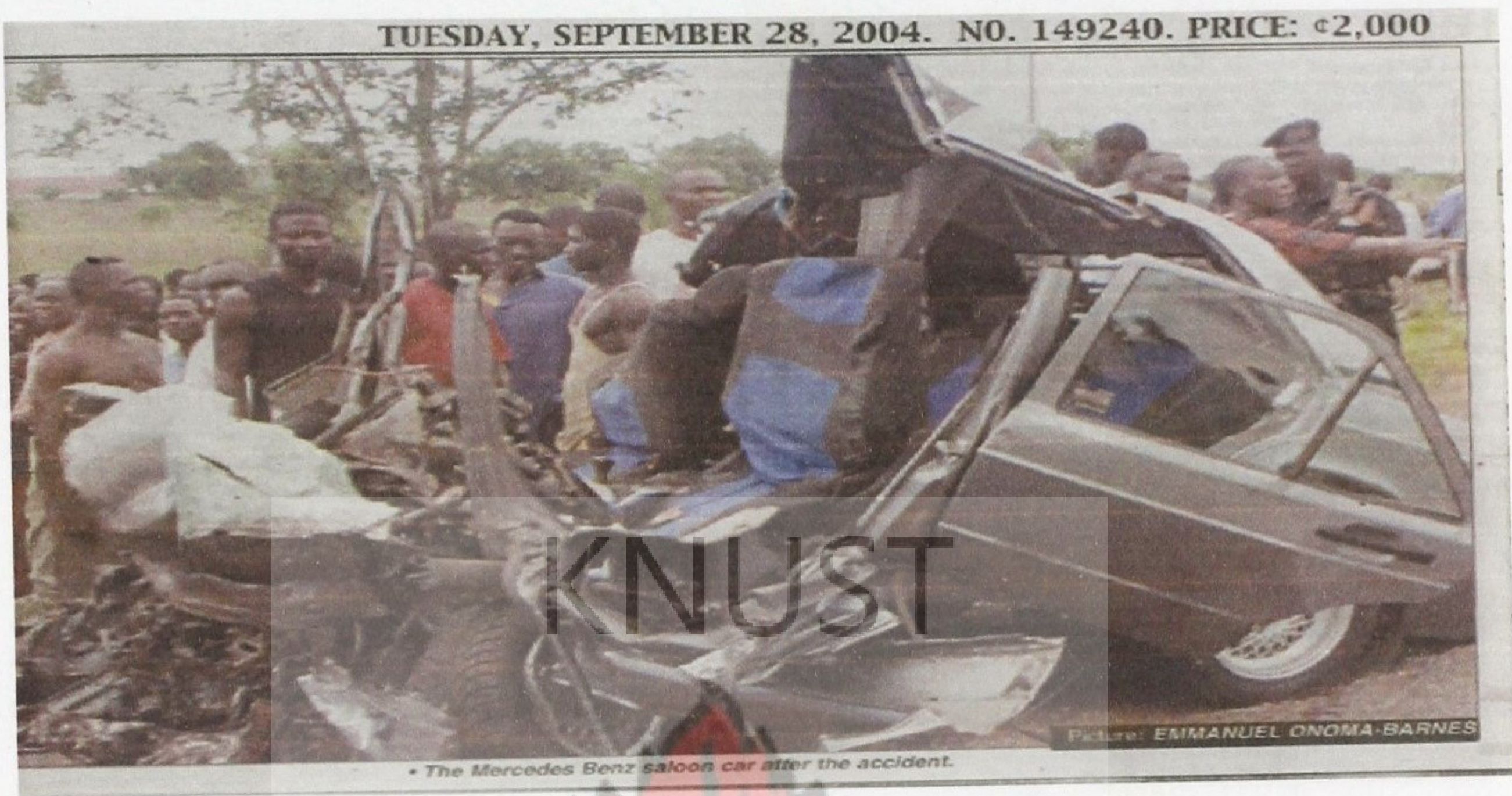
PLATE 2: TRAGEDY HITS KUMASI CHURCH AS 17 MEMBERS DIE IN ACCIDENT



SOURCE: DAILY GRAPHIC, MONDAY JULY 18, 2005. FRONT PAGE

SOURCE: THE GHANAIAN TIMES, TUESDAY, SEPTEMBER 1, 2005

PLATE 3: TRUCK RUNS OVER CAR, KILLING DRIVER



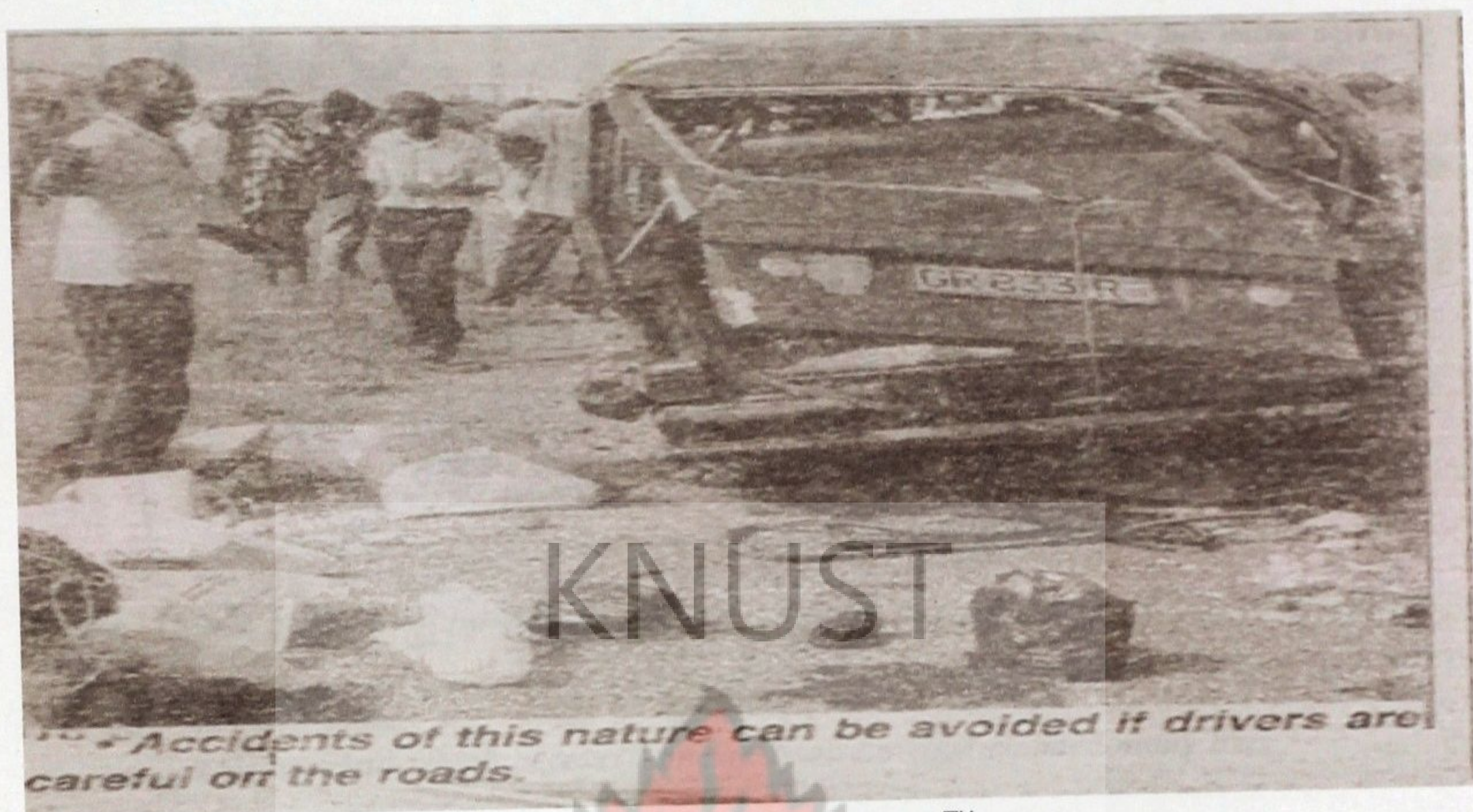
SOURCE: DAILY GRAPHIC SEPTEMBER 28, 2004

PLATE 4: ANOTHER TRAGEDY HITS NATION AS 15 PERISH IN AKOKOASO ACCIDENT



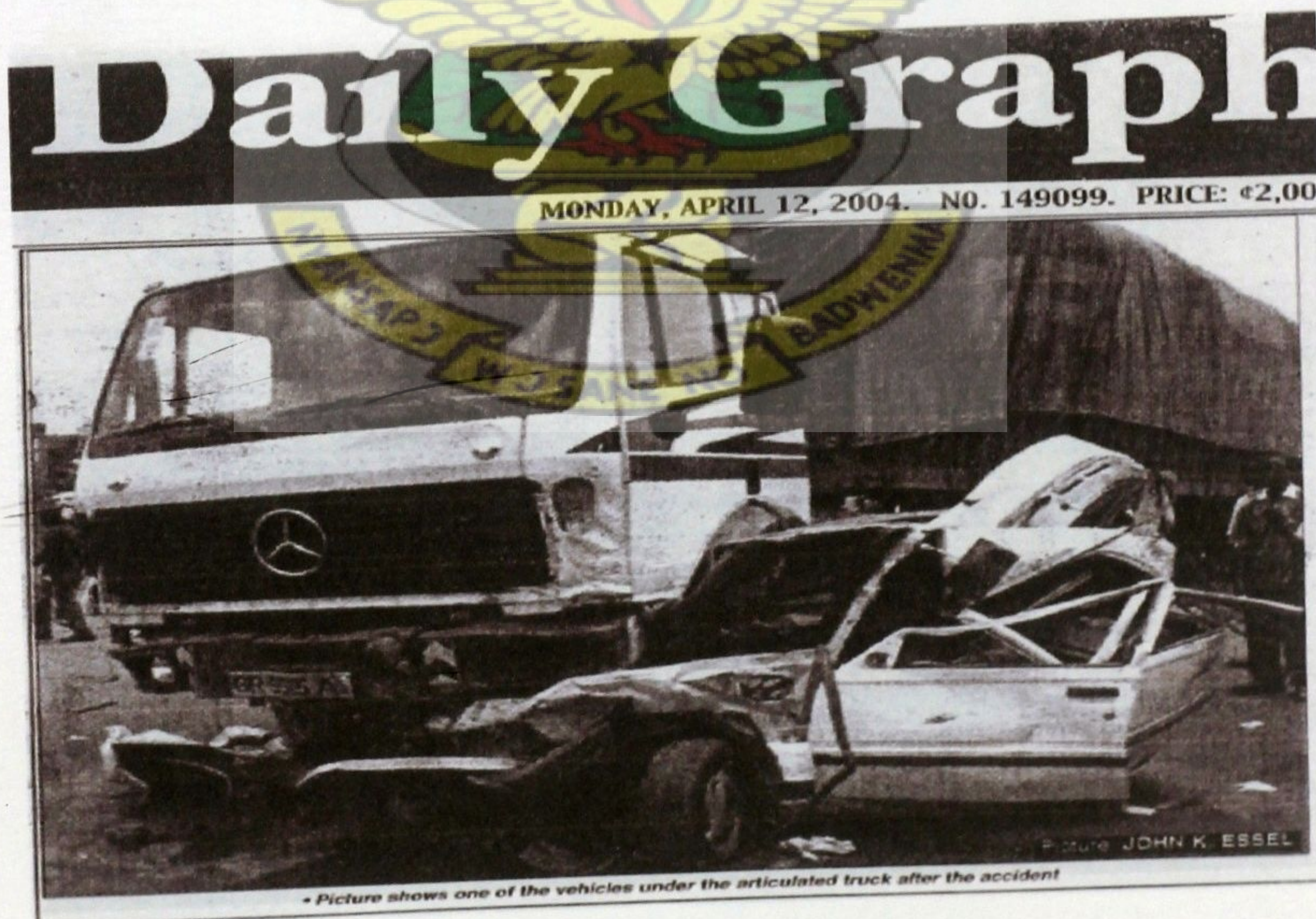
SOURCE: THE GHANAIAN TIMES, TUESDAY, SEPTEMBER 1ST 2005

PLATE 5: MOTOR ACCIDENT ON KASOA ROAD



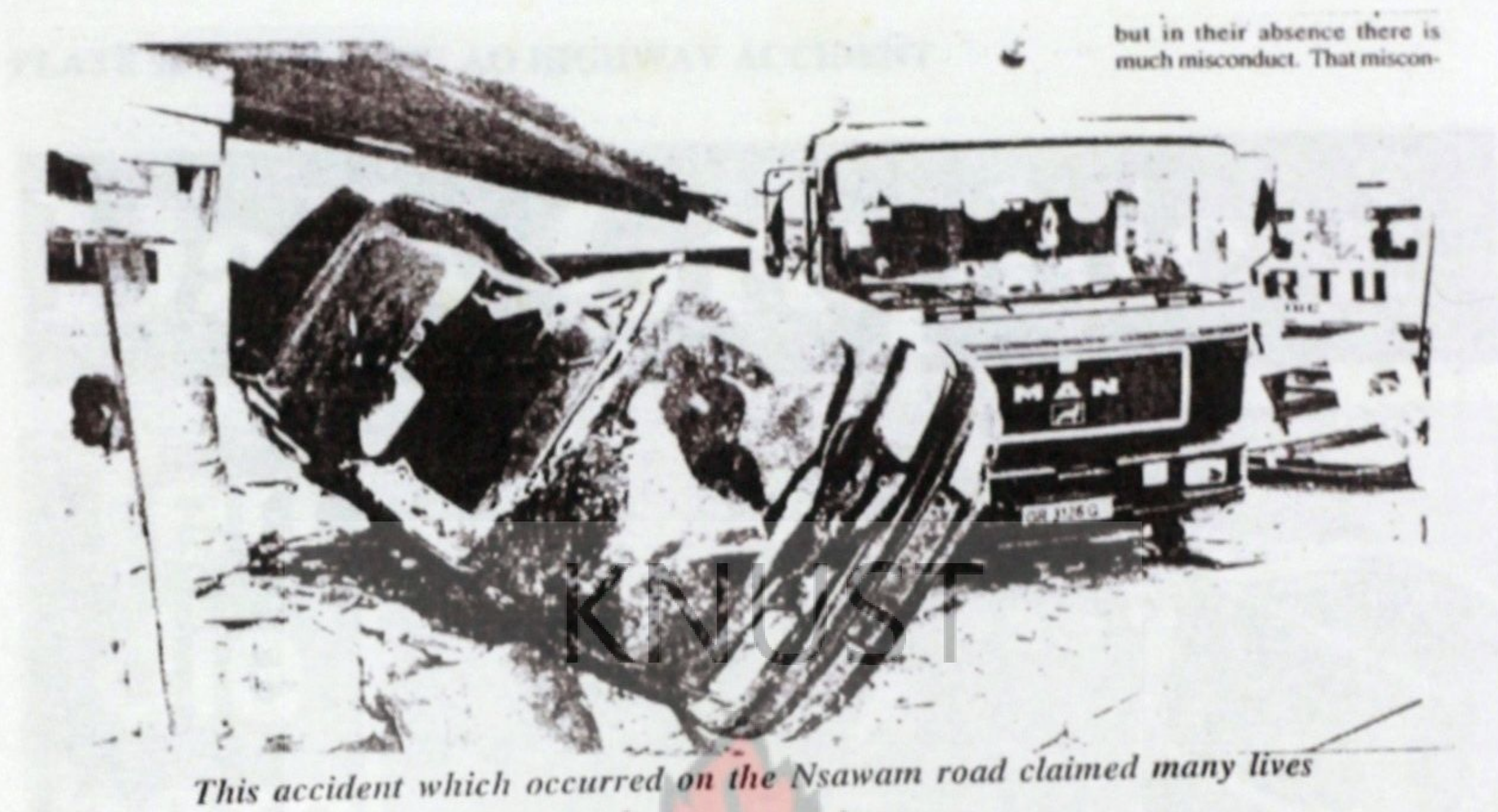
SOURCE: DAILY GRAPHIC, WEDNESDAY SEPTEMBER 14TH 2005

PLATE 6: ACCIDENT THROUGH CARELESS DRIVING



SOURCE: DAILY GRAPHIC APRIL 12, 2004

PLATE 7: ACCIDENT ON NSAWAM ROAD



SOURCE: GHANAIAN TIMES APRIL 20TH 2004, PAGE 6

PLATE 8: ACCIDENT ON ACCRA -TEMA MTORWAY



SOURCE: DAILY GRAPHIC SEPTEMBER 4, 2004

PLATE 9: TEMA -AFLAO HIGHWAY ACCIDENT

Daily Graphic

GHANA'S BIGGEST SELLING NEWSPAPER SINCE 1950

SATURDAY, APRIL 3, 2004. NO. 149094. PRICE: €2,000

Ten die here

Story: Debrah Fynn, Dawa

TEN people died in the early hours of yesterday when a Toyota Hiace on which they were travelling from Keta to Accra ran into the rear of an articulated truck near Dawa on the Tema-Aflao Highway.

Eight of the victims died on the spot, while the other two died on arrival at the Tema General Hospital. Only two of the victims have so far been identified.

They are Brown Kpoha, the driver of the Toyota Hiace, with registration

• Continued on P. 3



• The bus after the accident.

Picture: EMMANUEL ONOMA BARNES

SOURCE: DAILY GRAPHIC APRIL 3, 2004