Centrepoint Journal (Science Edition)
Volume 24, No.1, pages 85-100
http//www.unilorin.edu.ng/centrepoin
CPJ 2018006/24106

2141-3819/2017 $5.00 + 0.00
©2018 University of Ilorin

Assessment of Emergency Preparedness and Response Among Police Officers and Men in Ilorin, Nigeria

[1]Oladoye O.D, [1]Uthman M.M.B, [1]Oladiji F, [1]Ameen H.A, [2]Oyabambi A.O.*

[1]Department of Epidemiology and Community Health, University of Ilorin, Ilorin, Nigeria.

[2]Department of Physiology, University of Ilorin, Ilorin, Nigeria.

Corresponding author Email: oladoyeseun38@yahoo.com;

Tel.: +2347034654189

Abstract

The Police force is crucial in the local and national level emergency response through the 21st century and beyond. Emergency preparedness will be viewed as a protective process which encompasses all measures taken before a disastrous event aimed at minimizing the loss of life, disruption of critical services and damage to infrastructure and the environment, enabling governments, communities and individuals to respond rapidly and efficiently to disasters. The study assessed the knowledge, preparedness and response of police personnel towards emergency in Ilorin. A descriptive cross-sectional study of 400 policemen and officers was carried out, utilizing a semi-structured questionnaire in selected police formations. Descriptive and inferential statistics was carried out using the Statistical Package for Social Science (SPSS) version 20 with level of significance set at $p<0.05$. It revealed a higher proportion: 221 (55.2%) of the respondents with average knowledge of emergencies, good level of emergency preparedness: 207 (51.8%) and average level of response to emergencies: 334 (83.5%). The study also showed that worn-out equipment, inadequate facilities and insufficient relevant training were the major challenges that the police force face in emergency preparedness and response activities in Ilorin. The need to constantly train policemen in

view of the dynamic and evolving nature of emergencies in Nigeria is therefore advocated.

Keywords: Emergency, Emergency Preparedness, Response, Police Officers, Men.

Introduction

Emergency preparedness is a programme of long-term activities whose goals are to strengthen the overall capacity and capability of a country or a community to manage efficiently all types of emergencies and bring about an orderly transition from relief through recovery, and back to sustained development. It requires that emergency plans be developed, personnel at all levels and in all sectors be trained, and communities at risk be educated, and that these measures be monitored and evaluated regularly (WHO, 2007)**.** At the national and local levels, reducing the public health impact of emergencies and other crises requires a multisectoral outlook. Proper land use management and design of housing or new health facilities may, for instance, contribute most to decreasing mortality and morbidity. The provision of public health services and medical care is utterly dependent on the preparedness of other sectors such as law and order, transport and communications, lifeline services (water and electricity) and public works, search and rescue and fire services, social services and housing, and others. However, an emergency will be viewed as any threatening condition demanding urgent action to minimise adverse effects and its escalation.

Over time, there has been a major shift in how emergencies and crises are managed generally. More emphasis used to be placed on humanitarian response and relief activities whether national or international with less attention given to establishment of strategies and actions prior to emergencies that can mitigate the effects of these events on communities and preserve lives and assets. It is becoming increasingly clear that while humanitarian efforts remain important and need continued attention, emergency preparedness programmes are critical for reducing the effects of emergencies and other crises, and thus essential for the attainment and protection of sustainable development (WHO, 2007).

The law enforcement community has two vital roles in responding to emergencies: to provide for the safety and security of the community, and

to be first responders during times of crisis. Responding to emergencies is a shared responsibility for every police officer. The operational critical actions of the police support not only their own communities but neighbouring towns as well. When the impact of some events result in the loss of electricity from the national grid and municipal supply of water, making communities unsafe for traffic and pedestrians, police officers can reroute traffic, close roadways, and identify new routes for emergency responders. These actions maintain safety for the survivors and enable the rest of the emergency management team to do their jobs and focus on the more vulnerable populations. Following an emergency, officers in collaboration with other first responders perform health and welfare checks on residents and work with local organizations to direct survivors to locations where further assistance can be found (Fugate, 2013). The Police will continue to be key players in the local and national level emergency response through the 21st century and beyond. The police is involved in formulating policies for the control and management of incidents such as civil disturbances, riots, disasters, elections, suppression of insurrection and trade union disputes and other emergencies.

Considering the crucial involvement of the police at all levels of emergency management and the dearth of researches on emergency preparedness in the African security sector, this work is expected to contribute to the knowledge base on emergency preparedness in Nigeria and to stimulate continuous research into issues related to emergency preparedness. This study is similar to a previous study done in Kenya (Gachago and Beethoven, 2010).

This study is aimed at assessing the preparedness and response level of police personnels towards emergency in Ilorin, Kwara State, Nigeria. A high level of knowledge, preparedness and response towards emergency would contribute to the reduction of the public health impact of emergencies.

Subjects and Methods

Research design

The study was a descriptive cross-sectional one by design using semi-structured questionnaire. It included police officers and men in the state headquarter, various divisions and base in Ilorin metropolis. A total of 400

respondents who satisfied statistical requirements and met the inclusion criteria were used for this study. A two-stage sampling technique was used to select the respondents:

a. Simple random sampling by balloting was used to select two-third of all police divisions, and the mobile base.

b. A systematic sampling technique was used to select 400 respondents for this study. Proportionate allocation was used to determine the required eligible respondents from each selected police formations. The register of each police formation was used as a sampling frame with a determined sampling interval.

The study included police officers and men who were physically present while it excluded police officers and men who were on annual leave or out-of-station as at the time of study.

Research Instrument

The instrument used in this study was a self-administered semi-structured questionnaire which consists of four sections 'A', 'B', 'C', and 'D'. 'A' was made up of socio-demographic data while 'B', 'C', and 'D' sections consist of statements/questions designed to determine 'knowledge of emergencies', 'level of emergency preparedness', and 'level of response to emergencies' respectively**.** A checklist was also used for checking the major components of the emergency preparedness plan. Also, the pre-testing of the research instrument was carried out using 10% of the sample size among policemen of the State headquarter in a neighbouring state, Osun.

Data Analysis

The completed questionnaires were checked for completeness and accuracy. Statistical analysis was done using the Statistical Package for Social Sciences (SPSS) version 20 (IBM SPSS, 2011). There was also cross-tabulation of relevant variables. Inferential statistics using Chi square test was used to assess the significance of association, if any, between variables. A p-value of < 0.05 was considered statistically significant.

For the determination of level of preparedness, all questions under "level of emergency preparedness" except question on the organizer and date of workshop attended were graded. If 'yes' were picked, it was assumed to be correct while question on "the principal agency in charge of emergencies in Nigeria" was assumed correct if 'NEMA' was stated as the answer.

The responses were graded as follows: poor= 1-12 (at least 12 question units answered correctly), average=13-18 (between 13 and 18 question units answered correctly) and good= 19-21 (between 19 and 21 question units answered correctly). (Table 5).

Ethical Consideration

Ethical approval for the study was obtained from the Ethical Review Committee of University of Ilorin, Nigeria. A verbal informed consent was obtained before interviewing the respondents. Strict confidentiality was ensured while the purpose and benefit of the research were explained to the participants.

Results

Table 1: Comparative Analysis of Selected Socio-Demographic Profile of Respondents

Socio demographic Data	**Frequency**	**Percentage (%) N=400**
Age group (years)		
20-29	43	10.8
30-39	212	53.0
40-49	82	20.5
50-59	62	15.5
60-69	1	0.2
Total	400	100.0
Gender		
Males	262	65.5
Females	138	34.5
Total	400	100.0
Level of Education		
Primary	4	1.0
Secondary	146	36.5
Tertiary	250	62.5
Other Unit/Department		
General Duty	400	100.0
Mobile Policemen		
Yes	84	21.0
No	316	79.0
Total	400	100.0
Rank		
Men (NCO and Inspectorate cadre)	340	85.0
Officers	60	15.0
Total	400	100.0
Number of Years in Service		
0-9	95	23.8
10-19	189	47.2
20-29	63	15.8
30-39	53	13.2
Total	400	100.0

Mean±Sd Age = 38.78±8.50 *(Min=25, Max=60)*

Mean±Sd Number of years in service = 16.32±8.93 (Minimum=3, Maximum=35)

The socio-demographic characteristics showed that most of the respondents were in the age group 30–39 years (53.0%), were males 262 (65.5%) and of tertiary level of education 250 (62.5%). All respondents were from the General Duty department, 84 (21%) of them were mobile policemen while 340 (85%) of respondents were mostly of the rank of men. Respondents with 10-19 years in service constituted a higher proportion - 189 (47.2%). (Table 1)

Table 2: Cross Tabulation of Knowledge of Emergencies by Respondents

Emergency	**Frequency (%) N=400**	
	Yes	**No**
Awareness of emergency	380 (95)	20 (5)
Source of information		
Friends	107 (26.8)	293 (73.2)
Television	187 (46.8)	213 (53.2)
Radio	166 (41.5)	234(58.5)
Newspaper	94 (23.5)	306(76.5)
Training	153 (38.2)	247(61.8)
Workshop	85 (21.2)	315(78.8)
Health workers	120 (30.0)	280(70.0)
Consideration of what an emergency is		
Communal clashes and Conflicts	333(83.2)	67(16.8)
Road accidents	394(98.5)	6(1.5)
Airplane crash	390(97.5)	10(2.5)
Flood	376(94.0)	24(6.0)
Disease outbreaks	295(73.8)	105(26.2)
Fire outbreaks	392(98.0)	8(2.0)
Student unrest	290(72.5)	110(27.5)
Consequences of an emergency		
Medical consequences	374 (93.5)	26(6.5)
Environmental consequences	363(90.8)	37(9.2)
Psychological consequences	326 (81.5)	74 (18.5)
Economic consequences	324(81.0)	76(19.0)
Social consequences	257 (64.2)	143 (35.8)

With regards to knowledge of emergencies, a higher number of the respondents - 380 (95%) - knew what an emergency is. A greater number of the respondents - 187 (46.8%) - heard about an emergency situation

through the television with the lowest source - 85 (21.2%) - being through workshop. Medical consequences - 374 (93.5%) - were mostly considered by respondents as consequences of emergency with the lowest being social consequences, 257 (64.2%) (Table 2).

Table 3: Workshop Attendance

Variable	**Frequency (%) N=400**	
	Yes	**No**
Attendance of workshop or seminar on emergencies	201 (50)	199 (50)

About half 201 (50%) of respondents have ever attended a workshop or seminar on emergencies (Table 3).

Table 4: Respondents' Level of Response to Emergencies

Responses	Frequency (%) N=400	
	Yes	No
Understanding of personal preparedness		
Steps taken to make me ready and cope with an emergency that may happen in the future	390 (97.5)	10 (2.5)
Knowing my surroundings and staying informed	374 (93.5)	26 (6.5)
Understanding how I will respond to emergency	388 (97.0)	12 (3.0)
All-time Preparedness for emergency	340 (85.0)	60 (15.0)
Awareness, availability and level of use of below items		
Communication gadgets e.g. handsets, walkie-talkie		
Awareness	397 (99.2)	3 (0.8)
Available	395 (98.8)	5 (1.2)
Ever use	393 (98.2)	7 (1.8)
Present use	391 (97.8)	9 (2.2)
Future use	394 (98.5)	6 (1.5)
First aid boxes		
Awareness	396 (99.0)	4 (1.0)
Available	216 (54.0)	184

		(46.0)
Ever use	156 (39.0)	244 (61.0)
Present use	39 (9.8)	361 (90.2)
Future use	298 (74.5)	102 (25.5)
Fire alarms and detectors		
Awareness	380 (95.0)	20 (5.0)
Available	87 (21.8)	313 (78.2)
Ever use	171 (42.8)	229 (57.2)
Present use	45 (11.2)	355 (88.8)
Future use	363 (90.8)	37 (9.2)
Fire extinguishers		
Awareness	397 (99.2)	3 (0.8)
Available	110 (27.5)	290 (72.5)
Ever use	340 (85.0)	60 (15.0)
Present use	41 (10.2)	359 (89.8)
Future use	371 (92.8)	29 (7.2)

From the table, the respondents' understanding of personal preparedness was good, 388 (97.0%) of respondents understood how they will respond to emergency while a total of 340 (85.0%) respondents thought they were prepared for any emergency that may occur.

Respondents were generally aware of the existence of communication gadgets - 397 (99.2%), first aid boxes - 396 (99.0%), fire alarms and detectors - 380 (95.0%) and fire extinguishers - 397 (99.2%) respectively.

However, with respect to respondents' level of use of communication gadgets at home or office environment, 391 (97.8%) are presently using these while 394 (98.5%) of respondents were willing to use them in the

future. On respondents' availability and level of use of first aid boxes at home or office environment, 216 (54.0%) knew they are available, 156 (39.0%) have ever used them while 39 (9.8%) are presently using them. On respondents' availability and level of use of fire alarms and detectors at home or office environment, 87 (21.8%) knew they are available, 171 (42.8%) have ever used them while 45 (11.2%) are presently using them. On respondents' availability and level of use of fire extinguishers at home or office environment, 110 (27.5%) knew they are available, 340 (85.0%) have ever used them while 41 (10.2%) are presently using them.

Majority of the respondents were willing to use all items in the future with the lowest being 298 (74.5%) of respondents for first aid boxes (Table 4).

Table 5: Respondents' Assessment and Grading Of Knowledge Of Emergencies, Level Of Emergency Preparedness, And Level of Response to Emergencies Score Among Police Officers and Men in Ilorin.

Scoring/Grading	**Frequency**	**(%)**
Knowledge of Emergencies		
Poor = 1-8	35	(8.8)
Average = 9-12	221	(55.2)
Good = ≥13	144	(36.0)
Total	400	(100.0)
Level of Emergency preparedness		
Poor = 1-12	5	(1.2)
Average = 13-18	188	(47.0)
Good = 19-21	207	(51.8)
Total	400	(100.0)
Level of Response to Emergencies		
Poor = 1-14	34	(8.5)
Average = 15-20	334	(83.5)
Good = 21-30	32	(8.0)
Total	400	(100.0)

Regarding the table, a higher proportion: 221 (55.2%) of the respondents had average knowledge of emergencies, good level of emergency preparedness 207 (51.8%) and average level of response to emergencies 334 (83.5%) (Table 5).

Discussion

This study, whose objective was to determine the emergency preparedness and response level among police officers and men in Ilorin, is similar to a study done in Kenya (Gachago and Beethoven, 2010). It had an 100% response rate similar to a study carried out among an interprofessional team including security officers in Egypt (Hegazy *et al*., 2016). In this study, the males were more than the females. This is not out of place as men have always been the predominant group among the security forces in general and this does not leave out the police institution.

Less than half of the respondents: 36% had good knowledge of emergencies, a higher number of the respondents: 51.8% had good level of emergency preparedness which is in line with a study carried out in California (Kelenske, 2011) where 53.2% of emergency responders considered themselves as being prepared for a major disaster, and good level of response to emergency 8.0%. A greater number: 55.2% of respondents had average knowledge, 47.0% had average level of emergency preparedness, and 83.5% had average level of response to emergencies. Moreover, 8.8% and 8.5% of respondents had poor knowledge of emergencies and poor level of response to emergencies respectively. However, only 1.2% of the respondents had poor level of emergency preparedness which supports a survey carried out in the United States (Henderson, 2006) where only about 1.25% (5 out of 400) of emergency management officials were prepared for emergencies. Average knowledge of emergencies instead of good knowledge may threaten proper handling and understanding of the peculiar nature of some emergencies. Average knowledge may also endanger the life of police responders as some emergencies with medical consequences such as Ebola infections are contagiously deadly. Good level of emergency preparedness may be due to the inherent function of police officers and men which has configured them to be prepared for emergencies at all times. Average level of response instead of good level of response may be related to dearth of appropriate and functional equipment that would have further motivated

them in arresting emergency situations promptly. These may also result in extended damages that could have been avoided with early and timely intervention if there is good level of response.

About half: 50% of respondents have ever attended a workshop or seminar on emergencies while the other half 50% have never attended. Majority of the respondents (16.3%) underwent workshop or seminar on emergency preparedness from their employer, the Nigerian Police Force. This shows that more of the respondents have to be provided an opportunity to undergo emergency preparedness workshop from time to time in view of the dynamic nature of emergencies.

All respondents were from the general duty department with 36%, 55.2% and 8.8% of respondents having good, average and poor knowledge respectively. This was statistically significant.

This study has been able to contribute to knowledge from the very few past literature as there has been no study on emergency preparedness and response level among policemen in Kwara State. These policemen cannot but be called upon in managing and responding to emergencies, hence the need for them to have a high level of preparedness and response to emergencies. The study has been able to identify that there is good/high level of preparedness and average/fair level of response to emergencies among police officers and men in Ilorin but there are several factors that serve as barriers to their level of preparedness and response in terms of deficient equipment, lack of training and understaffing. It has also been able to identify the willingness of policemen to use equipment as long as they are available.

In addition, millions of people are increasingly been affected by disasters in Nigeria. (2014-2016 Strategic Response Plan Nigeria, 2014). It is therefore a necessity for Nigerian policemen to have a high level of emergency preparedness and response. This study has some limitations as there was no literature which recorded a study on emergency preparedness and response among policemen in Kwara State and Nigeria as a whole. However, more studies on emergency preparedness should be done in Kwara State.

Conclusion

This study revealed that a higher proportion 55.2% of the respondents had average knowledge of emergencies, 51.8% had good level of emergency preparedness and 83.5% had average level of response to emergencies. However, 8.8%, 1.2% and 8.5% of respondents had poor knowledge of emergencies, poor level of emergency preparedness and poor level of response to emergencies respectively.

Moreover, majority of respondents had good level of preparedness and average/fair level of response to emergencies among police officers and men in Ilorin but there are several factors that serve as barriers to their level of preparedness and response in terms of deficient equipment, lack of training and understaffing. It has also been able to identify the willingness of policemen to use equipment as long as they are available.

In conclusion, the study established that worn-out equipment, inadequate facilities and insufficient relevant training were the major challenges that the police face in emergency preparedness and response activities. Training and retraining of police staff and provision of modern equipment for emergency management has been recognized as been important to the effectiveness of the police in preparedness and response to emergencies.

Consequently;

1. Assessment of the police preparedness for emergencies should be carried out from time-to-time.

2. Hazard analysis and vulnerability assessments that involve the community should be conducted.

3. The police institution should develop disaster map and plan. It also need to include;
   - Response to internal disasters such as fire, collapse of police buildings, flooding and other hazards.
   - Evacuation plan for each division should also be mandatory and the staff should know the evacuation procedures.

4. The police institution should conduct workshop and training: Selected personnel can be sent on emergency-related courses and return to share their knowledge and skills.

5. Provision of essential facilities and personnel for emergency preparedness and response should be ensured.

Acknowledgement

The authors wish to express their gratitude to Professor G. K. Osagbemi of the Department of Epidemiology and Community Health, University of Ilorin. His invaluable contributions during the study are highly appreciated.

References

Fugate, C.W. (2013). Law Enforcement's Role in Responding to Disasters. From the Administrator, The Police Chief, 80: 100–101.

Gachago, and Beethoven, K. (2010). An investigation of police preparedness and experience in management of disaster incidents: a case study of police in Nairobi. Available at http://erepository.uonbi.ac.ke:8080/ handle/11295/3966. Accessed on 23/6/15.

Hegazy I., Taha M., Abou Zeid A., El-Taher E., and Hassan, N. (2016). Assessing the Awareness Regarding Disaster Management Plan among an Interprofessional Team in a University Hospital. International Invention Journal of Medicine and Medical Sciences, (ISSN: 2408-7246), 3(2): 32-39.

Henderson, O.K. 2006. *United States Homeland Security Official Warns Iowans to Be Prepared*. Available on http://www.radioiowa.com/gestalt/go.cfm?objectid=DC9C946F-8B0F-4189-B2D822A312692449. Accessed on 28/8/2017.

IBM SPSS Statistics for Windows, Version 20.0. (2011). Armonk, New York, United States of America: IBM Corp.

Kelenske, C.A. (2011). Emergency responder personal preparedness, Naval postgraduate school Monterey, California, 71.

2014-2016 Strategic Response Plan Nigeria. (2014). Report from UN Office for the Coordination of Humanitarian Affairs.

World Health Organisation (2007). Risk Reduction and Emergency Preparedness. WHO six year strategy for the health sector and community capacity development. Geneva, Switzerland.