Original Article: Perception on Emergency Preparedness Among Religious Organizations in Nigerian City: a Cross-Sectional Study

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ABSTRACT

Emergency preparedness requires actions from both institutions and individuals. Like a weak link in a chain, individual preparedness, behaviors, and predisposition to play an essential role in emergencies determine the level of effectiveness of such preparedness. This study aimed to assess the attitude, behavior, and knowledge of religious organizations (congregations) on emergency preparedness. The study was conducted using a cross-sectional research design, and primary data was collected with a questionnaire which was analyzed through descriptive statistics. Four hundred respondents (congregants) were sampled across the zonal headquarters of 5 major churches within the Port Harcourt metropolis. The result revealed that the significant source of information about emergency preparedness was television (38.25%), and churches are not prepared for an emergency (56.0%). Furthermore, most respondents never experienced any emergency (67.75%); however, perceived that churches are doing what they can to prevent emergency events around them (72.25%). The respondents indicated adequate knowledge about emergencies (66.5%) and perceived the collapse of a church building (26.75%) as the most common emergency associated with churches due to uncontrolled crowds (40.25%). The respondents (30.25%) revealed that discussing possible emergencies in the church is the most effective measure of emergency preparedness. In conclusion, individual emergency preparedness can be improved through changing attitudes and knowledge, which can be developed through continuous dissemination of information and engaging congregants in disaster drills and exercise to improve their experience.

Introduction

Faith-based organizations (FBOs), like any other organization and institution, are faced with different hazards ranging from disease outbreaks, weather-

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climate related hazards, terrorism, and fire outbreak. In Nigeria, many FBOs and, specifically, Churches have suffered various disasters in recent times ranging from acts of terrorism, building collapsing, flooding events, and the recent health-related issue of Covid-19. All these events highlight the significance of effective emergency plans and abilities to respond during an emergency. Emergency preparedness is a crucial activity for being able to respond to an emergency. Although emergencies usually occur suddenly, appropriate preparedness can mitigate the hazards caused by emergencies [1]. Emergency preparedness requires actions from both institutions and individuals. Individual preparedness behaviors play an essential role in an effective response [2,3]. During an emergency, individuals have to take action before any organized response kicks in to minimize loss and damage [4].

Annually, emergencies and disasters directly affect human lives and economic loss. According to the Research Centre for the Epidemiology of Disasters (CRED), over the past twenty years, 7,348 disaster events were recorded, claiming the lives of ~1.23 million people. In addition, Van Coller and Akinloye (2021) reported religious-related disasters leading to death, injury, and economic loss. For instance, in 2014, the collapse of a church building belonging to the Synagogue, Church of All Nations (SCOAN), Lagos State, resulted in 116 deaths [5]. Also, Onyanga-Omara (2016) reported a death toll of 50-160 from the collapsed building of Reigners Bible Church, Akwa-Ibom, Nigeria.

Furthermore, acts of terrorism in Churches in Nigeria have led to the death of many worshipers and various degrees of injury. For instance, the mass shooting attack on worshipers during their services led to over 30 worshipers losing their lives in June 2022 in Iwo, Ondo state, Nigeria [6]. All these activities and other recent events highlight the need for emergency preparedness practices, and to achieve such. There is a need to understand the perception of the concerned individual.

Emergency preparedness activities comprise many components and include a complex cycle of planning, equipment, training, exercises, and improvement [7], with emergency preparedness exercises often considered the most vital part of the cycle [8,9]. Different emergency preparedness exercises can broadly be combined into two major groups which test different aspects of an organization and system's emergency preparedness: discussion-based exercises (often referred to by different names, including desktop exercises, workshops, or seminar-based exercises) and operation-based exercises (such as drills, functional exercises/ command post exercises, and field exercises) [8].

Studies have been conducted chiefly among residents [10,11], nurses and health workers [12-14], and students [15]. These studies established the perception of preparedness among the targeted audiences; however, studies of this nature are limited among FBO and specifically Churches (worshipers/congregation). Therefore, this study aims to assess the perception of emergency preparedness based on the attitude, behavior, and level of knowledge towards various hazards among church congregations in the Port Harcourt metropolis.

Methodology

The study was carried out within the urban area of Port Harcourt, Rivers State, Nigeria. Port Harcourt is the capital of Rivers State, a southern zone of Nigeria. Port Harcourt is located within the Sub-Equatorial region located on latitudes 4° 42' N and 4° 47' N and longitude 6° 55'E, 7° 08' E (Figure 1). Port Harcourt is also a Local Government Area and a major city in the state. Port Harcourt, parts of Obio-Akpor, Eleme, and Ikwere, made up the metropolis.

A cross-sectional research design was employed in this study while the study population cut across the zonal headquarters of 5 key churches within the metropolis. With the aid of the Taro Yamane formula, four hundred (400) respondents (congregations) from a population of 385,245 were sampled. A questionnaire was designed to elicit information regarding the

perception of emergency preparedness among the congregations. The designed questionnaire used open and closed question formats, and its reliability was carried on congregation/church outside the study. At the same time, a correlation coefficient (r) of 0.7 was obtained, which showed consistency of response to the questions for the study. The retrieved questionnaire coding was done with MS Excel before being transferred to the statistical package for social sciences (SPSS) data entry. Then, using the SPSS window (Version 22), the menu-bar analysis tool containing the descriptive statistics tools (Frequencies- was used in analyzing descriptive statistics such as frequencies, percentages, mean and standard deviation) were adopted for the analysis.

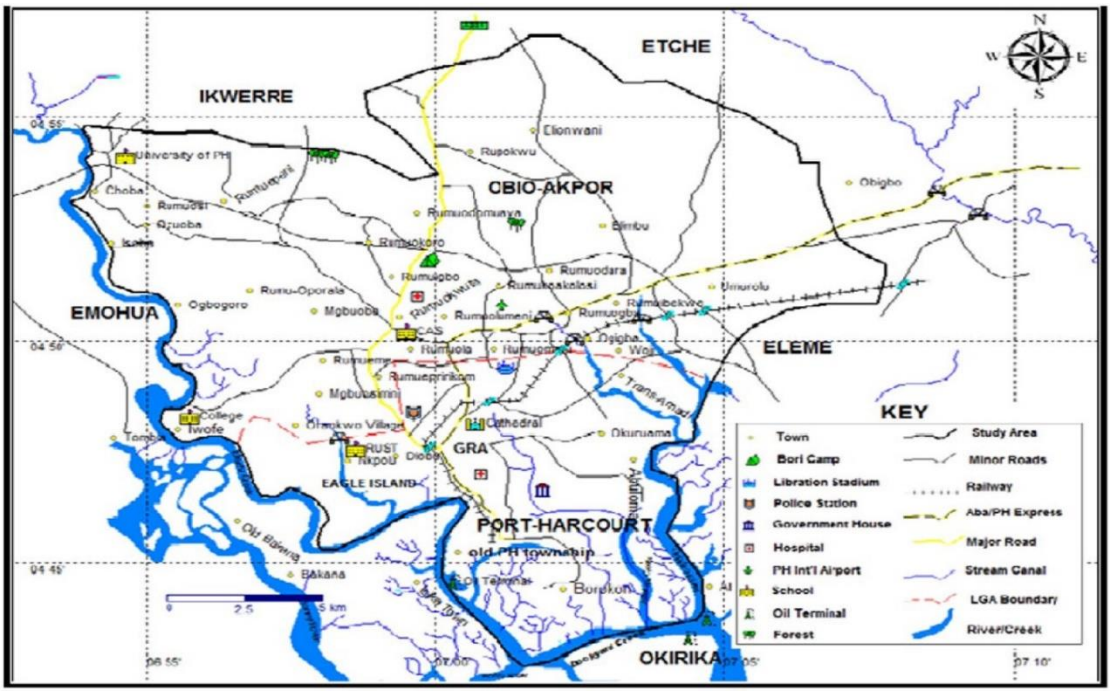

Figure 1: Port Harcourt Metropolis, Rivers State

Result

Figure 2 represents the demographic details regarding the gender, age, marital status, level of education, and years of worship at the church of the respondents that participated in the study. The gender details showed that 223 (55.7%) of the respondents were male, while 177 (44.3%) were female. The age ranges revealed that 124 (31%) aged ranged 18-29 years, 163 (40.75%) ranged 30-40 years, 75 (18.75%) ranged 41-50 years while 27 (6.75%) and 11 (2.75%) aged ranged from 51-60 years and above 60 years respectively. The marital status indicated that 103 (25.75%) were single, 243 (60.75%) were married, and 40 (10%) and 14 (3.5%) were divorced and widowed, respectively. In addition, 164 (41%) of the worshipers claimed to have obtained secondary level education, while 44 (11%), 50 (12.50%), and 142 (35.5%) claimed to have obtained no education, primary and tertiary level education, respectively. Respondents revealed have been worshiping at their church for less than a year (14.25%), 2-4 years (41.5%), 5-7 years (21.25%), and eight (8) years more (23%).

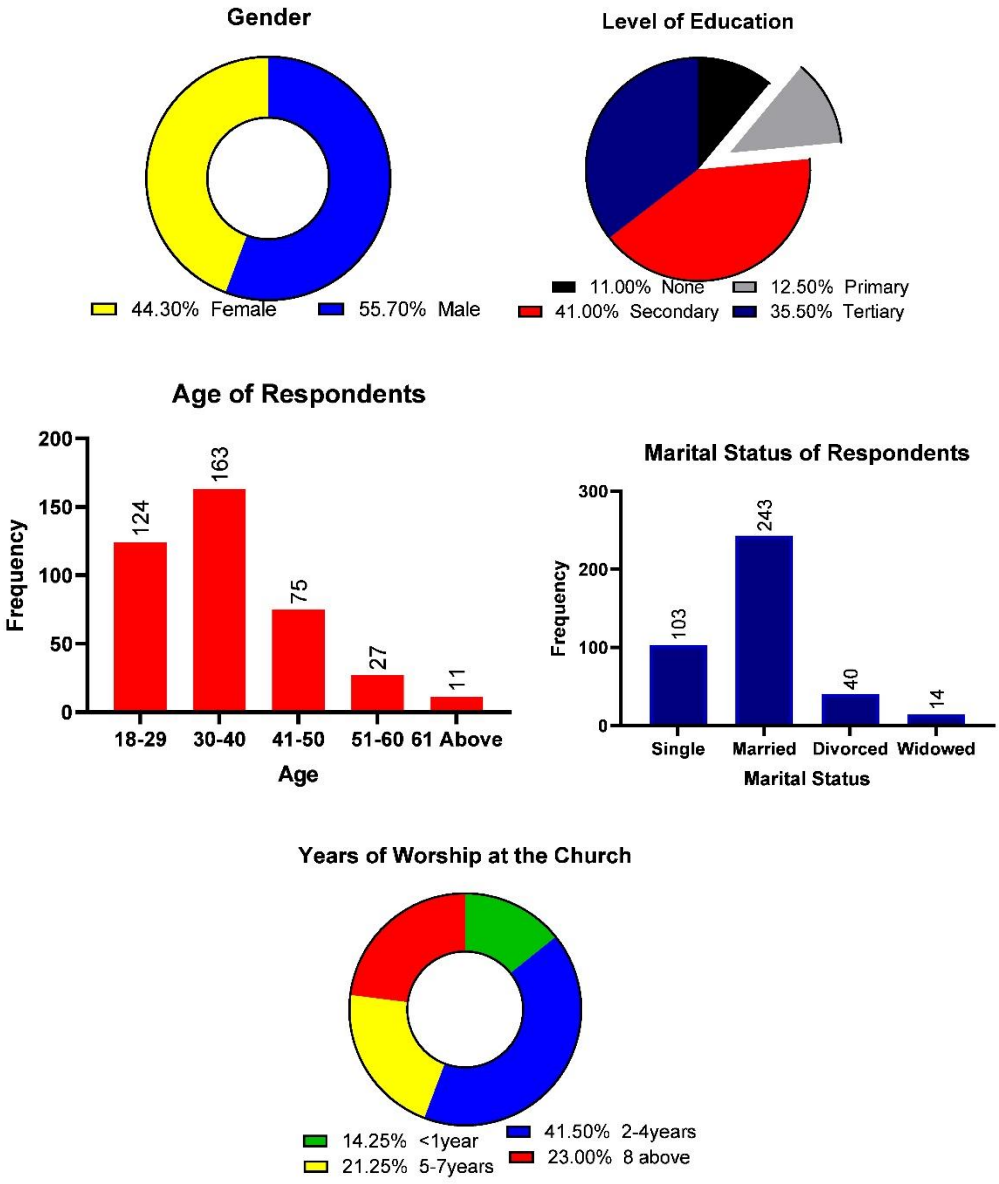

Figure 2: Demographic Details of Respondents

Attitude, behavior, and perception of the congregation towards emergency preparedness are presented in Table 1. The primary source of information among the congregation indicated the most sourced channel is television (38.25%). In comparison, other means include radio (23.75%), from the altar (16.25%), Newspaper (11.25%), Lecture (5.75%), Personal experience (3.0%), and other means such as person-to-person discussion (1.75%). The respondents captured by the study indicated that churches are not prepared for an emergency (56.0%), while 67.75% (271) of the respondents have not experienced any form of emergency in the church environment. The study indicated that 271 (67.75%) of the respondents have never responded to any form of emergency in the church environment. The respondents (72.25%) revealed that churches are doing everything possible to prevent emergency events around them.

The knowledge of emergency preparedness among the churches is presented in Table 2. Among the respondents, 74.25% agreed that "Emergency preparedness and disaster response involve an adequate plan to prevent an occurrence," while 25.75% thought otherwise. Concerning knowledge of various forms of emergency, 66.5% (266) participants indicated adequate knowledge about emergencies, while 33.5% (134) revealed inadequate knowledge about emergency forms. The respondents' most perceived emergency at the worship centers was the likely collapse of a church building (26.75%), and the minor emergency was electrical damage (5.25%). The most perceived cause of emergency among the congregation was the uncontrolled crowd (40.25%), while the least perceived cause was office/cooking equipment (6.0%). As revealed by the respondents, often preaching about possible emergencies in the church (30.25%) is the most effective measure of emergency preparedness.

Table 1: Attitude, and behaviour towards emergency preparedness

Variable	Frequency (n=400)	Percentage (%)
Major source of information on emergency		
From the Altar	65	16.25
Television	153	38.25
Radio	95	23.75
Newspaper	45	11.25
Lecture	23	5.75
Personal Experience	12	3
Others	7	1.75
Church Preparedness for an Emergency		
Well Prepared	176	44
Not Prepared	224	56
Ever experienced any form of emergency in the Church Environment.		
Yes	46	11.5
No	271	67.75
Maybe, Not sure	83	20.75
Have you ever responded to an Emergency		
No	271	67.75
Yes, as a Volunteer	77	19.25
Yes, as an Official Responder	40	10
Yes, Others	12	3
Church Doing Everything Possible to Prevent Emergency		
Yes	289	72.25
No	59	14.75
Everything is left to God	39	9.75
I Do not Know	13	3.25

Table 2: Knowledge of emergency preparedness

Variable	Frequency (n=400)	Percentage (%)
Emergency preparedness and disaster response involve an adequate plan to prevent an occurrence.		
Agreed	297	74.25
Disagreed	103	25.75
Never Heard of it Before	-	-
Knowledge about various forms of emergency		
Very Adequate	194	48.5
Adequate	72	18.0
Inadequate	93	23.25
Very Inadequate	41	10.25
Most likely an emergency at the worship centre		
Fire Outbreak	34	8.5
Stampeding	89	22.25
Building Collapsing	107	26.75
Slips and Falls	60	15.0
Electrical Damage	21	5.25
Disease Outbreak (Pandemic)	89	22.25
Perceived major causes of emergency		
Mechanical Failure	68	17
Unprofessional Officials	91	22.75
Uncontrolled Crowd	161	40.25
Office/Cooking Equipment	24	6.0
Will of God	56	14.0
Effective Measures towards Emergency Preparedness		
Written Church Emergency Plan	76	19
Fire alarm and Smoke/Heat detector installed	37	9.25
Training of church worker(s) on emergency response	97	24.25
Preach Often about possible emergencies in the church	121	30.25
Emergency lighting installed and operative	52	13
No cords or speaker wires across floors, aisles, or doorways	17	4.25

Discussion

Through cross-sectional research, the attitude, behavior, and knowledge of respondents (congregation) towards emergency preparedness were measured. The outcome deduced that the source of information is the television and radio. The finding was similar to the study of Mahmood et al. (2020) [16], where social and electronic media was theprimary source of information about the perception of disease outbreaks. Going by the feedback, churches are not well-prepared or unprepared for an emergency, as perceived by the respondents. However, many claimed not to have experienced any emergency in their church. Respondents who never responded to an emergency can be related to their lack of emergency experience; however, there was a general perception about churches doing

everything possible to prevent emergency events around them. Susila et al. (2019) [13] noted similar outcomes among health workers who lack prior experience in disaster, resulting in low disaster preparedness and poor knowledge of disaster management. Studies conducted in Nigeria revealed a similar outcome of ill-prepared and lack of experience in emergency preparedness [14, 17].

Most respondents are aware of emergencies in the context of preparedness, and the concept was not strange to their understanding. However, this was not enough to ascertain their understanding of various forms of emergencies that churches are susceptible to. Previous studies reported similar outcomes [14-16], although the percentage therein was higher. According to Sutton and Tierney (2006) [18], disaster preparedness encompasses measures to enhance life safety during a disaster. The collapse of buildings was perceived as the most common emergency in churches, followed by stampeding and infectious diseases, among others. The finding corroborated Van Coller and Akinloye (2021), which revealed that there had been more reported cases of 'church' building collapse than mosques or any other religious worship places in Nigeria. Fowode (2016) [19] and Ogundele (2018) [20] shared similar outcomes about collapses of religious buildings leading to many deaths and injuries, and they remain a typical emergency among churches in Nigeria. Uncontrolled crowds have been the most perceived cause of emergencies such as the collapse of the building, stampeding, and communicable diseases (disease outbreaks). The respondents revealed that emergency preparedness could be effective through regular preaching about possible emergencies related to the church. As noted by Colet et al. (2015) [21] and Basnet et al. (2016) [22], disaster can occur anywhere at any time in any entity. Therefore, individuals should be familiar with and prepared to respond to the needs of the disaster-affected population effectively.

Conclusion

For many FBOs to improve their overall emergency management, every individual (congregations/worshipers) must develop the required preparedness level. Individual emergency preparedness behaviours are associated with attitudes, knowledge, and risk perception. Attitudes significantly impact preparedness behaviors, while Knowledge and risk perception are indirectly linked with preparedness behaviors. This suggests that individual emergency preparedness can be improved through changing attitudes and knowledge, which can be developed through continuous dissemination of information, disaster drills, and exercises to improve their experience

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Authors' contributions

All authors contributed toward data analysis, drafting and revising the paper and agreed to responsible for all the aspects of this work.

Conflict of Interest

We have no conflicts of interest to disclose**.**

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