MEDICO-SOCIAL PROBLEMS OF VICTIMS ON THE GROUND OF THE E.A.S. PLANE CRASH IN KANO

*KABIR M., *ILIYASU Z., *ABUBAKAR I.S, **DAMBAZAU H.L

*DEPT. OF COMMUNITY MEDICINE AMINU KANO TEACHING HOSPITAL & **DEPT. OF COMMUNITY MEDICINE & PRIMARY CARE, BAYERO UNIVERSITY KANO.

CORRESPONDENCE TO: DR. MOHAMMED KABIR,
DEPT. OF COMMUNITY MEDICINE, AMINU KANO TEACHING HOSPITAL, P.M.B.3452, KANO, NIGERIA.

ABSTRACT

OBJECTIVE: The aim of this study was to describe the medico-social problems faced by victims at the EAS plane crash in kano city.

METHODS: Structured survey questionnaire was administered on the 56 households affected by the EAS plane crash in kano city.

FINDINGS: There were thirty- five deaths out of the 601 (5.8%) affected inhabitants while 36 of them (6%) sustained various injuries. A majority of those injured (74.3%) had burns: others had cuts, fractures, amputations and dislocations. Social effects of the plane crash include inability to pay debts (24%), inability to pay school fees for children (23%) and inability to feed family (17%). A majority of spouses (66%) sympathised with their partners, although in 6% of cases the incident led to separation. Sixty six percent of the respondents accepted the incident as an inevitable fate from God. Forty five percent of the respondents, however,felt government'response to the disaster was inadequate.

CONCLUSION: The National Emergency Management Agency needs to prepare adequately for future disasters. In addition, the development of disaster managenent committees at all levels of government with representatives of the community and NGOs was advocated.

KEY WORDS:PLANE CRASH, INJURIES, DEATH, SOCAL PROBLEMS.

INTRODUCTION

Globally more than four hundred civil air crashes were reported to the civil aviation authority in a decade. (1) About a quarter of these crashes occurred on or near airfields with injuries and deaths among passengers and crew. (2) Reported include fractures, spinal cord injuries and burns with residual disabilities on follow up.(2,3) medico-social effects of such disasters on crash site victims and how they perceive handling of the situation by concerned authorities has not being reported in our environment. An E.A.S. domestic flight with 76 people on board crashed soon after take off from the Malam Aminu Kano International Airport into a densely populated part of the old Kano city-Gwammaja quarters. The aim of this study was to describe the medico-social problems faced by victims on the ground at the crash site.

MATERIALS AND METHODS

Gwammaja is a ward in Dala Local Government in Kano metropolis. It lies approximately 1.5 miles from Aminu Kano International airport.(4) The Gwammaja area mde up of Ward A and Ward B has a total population of 89,267 and contains a total of 3,769 households. Out of the total number of households, 56 were identified as victims by virtue of either bereavement in the household or suffering injuries by its numbers or by its structures being physically damaged during the air crash. Gwammaja is a Muslim community with the adult men engaged in varied occupations while the women are mostly in purdah. Consent for the study was obtained from the Dalla Local Government, Walillin Arewa (the traditional head of Kano North) and the individual bed of households. The ward heads of Gwammaja Ward A and Ward B assisted the investigtors in administering the questionnaire to each of the affected households.

Design: A cross-sectional descriptive study

METHODS: The authors administered structured questionnaires on all heads of the affected household s on the 2nd and 3rd of November 2002. Information was collected on personal particulars, morbidities, mortalities among members of the household and how the air crash affect members in terms of whether they are able to honour their social obligations how it affects marital relations, their own attitude toward being victims and the reaction of family members and of the larger society towards the victims. They were also asked to assess the handling of the situation by the concerned authorities.

Statistical Analysis: Results were analysed using MINITAB 12.21(U.S.A) statistical software package. Median, range and percentages were used to describe quantitative and qualitative data respectively, Microsoft Excel and Word in windows 98 were used for graphics and tables in the order.

RESULTS

Fifty-six interviews were held in this study being all the head of households or their representative at home in the affected households, There were a total of 601 members in the affected households

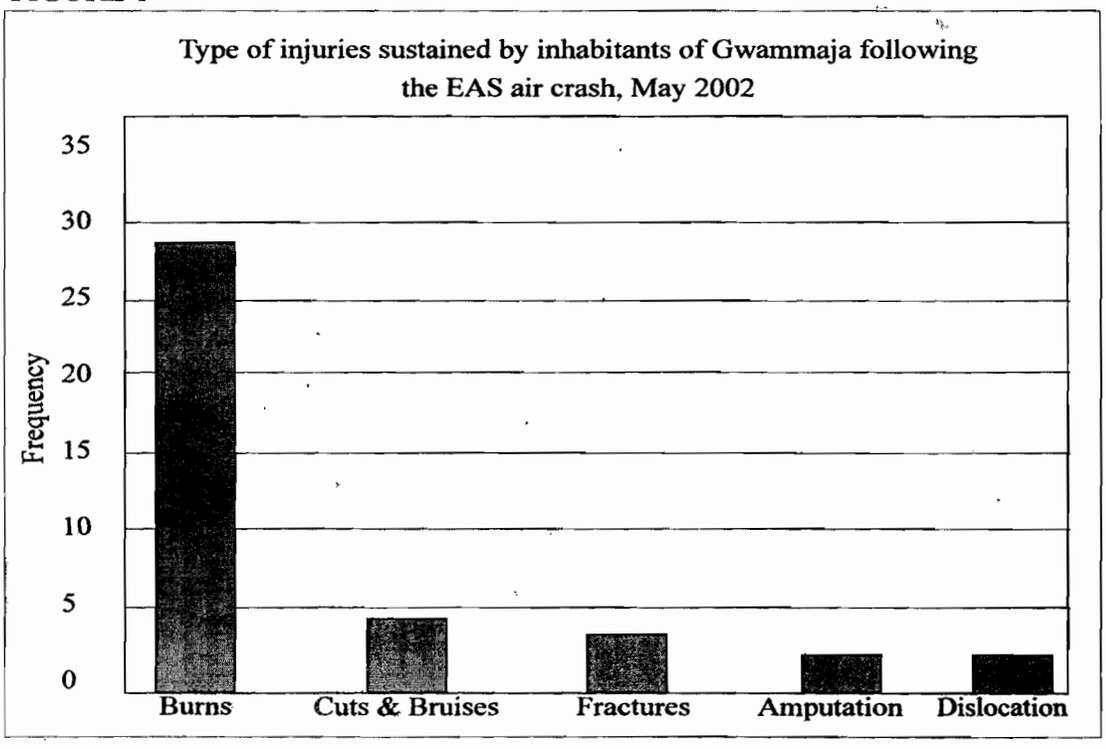
Table 1. shows mortality by age and sex. Thirty-five persons out of 601(5.8%) of the inhabitants died. The male to female ratio of these deaths was approximately 2:1. Their ages ranged from 1to 59 years with a median age of 15 years.

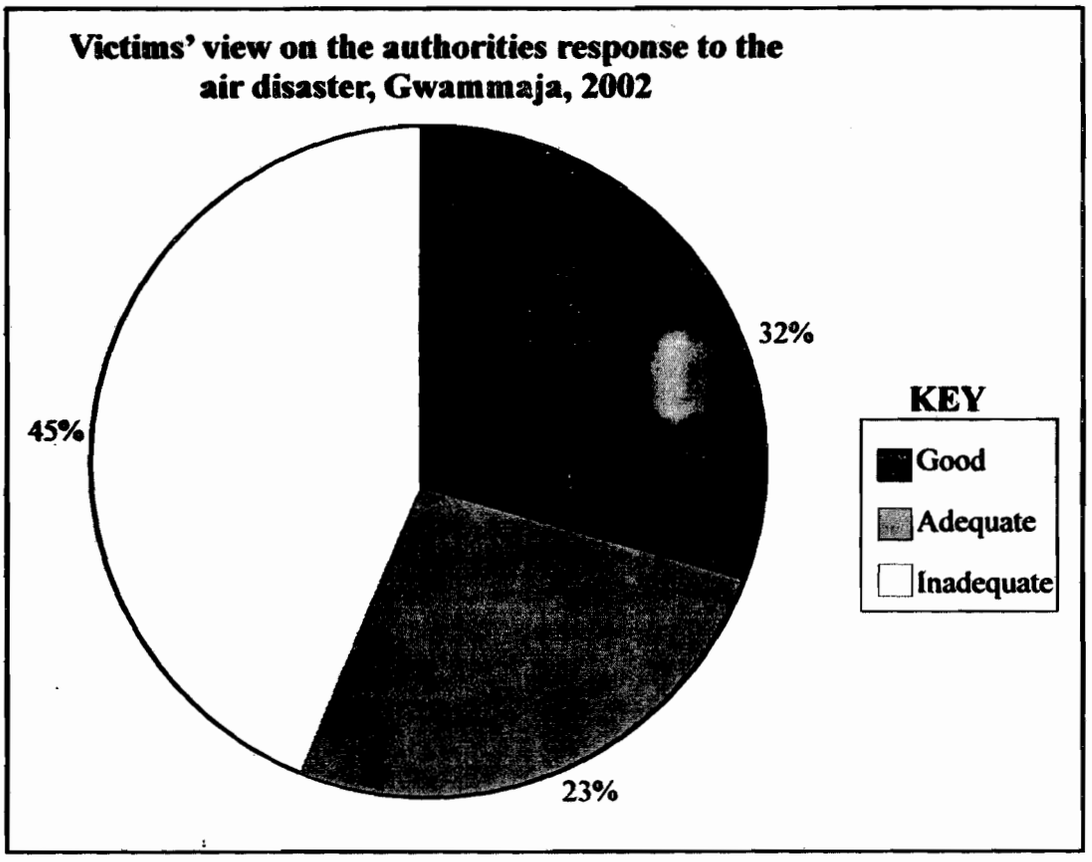
Table 2. shows injuries by age and sex among the inhabitants. Thirty-six persons (6%) sustained injuries with a male to female ratio of approximately 2:1. Their ages ranged from 1 to 59 years with a median age of 19 years.

The types of injuries sustained by victims are shown in figure1. A major (74.3%) suffered burns followed by fractures, amputations and dislocation. Sequel to the total loss of fingers of the right hand, one of the victims had to abandon his tailoring job. Patial pinna loss, Scars, contractures and keloids resulted in restricted range of movement, psychological problems and cosmetic embarrassment in seven of the victims.

Figure 3 shows social problems of the victims as a result of the crash. Twenty four percent of the victims were unable to pay their debt while 23% were unable to pay school fees for their children. Others reported inability to pay utility bills(21%); another 17% were unable to feed their families. Regarding the effect of the accident on marital relationships, a majority of spouses (66%) sympathised with their partners. In contrast, there was separation in 6% of the affected households. Sixty-six percent of the respondents saw the event as an act of God and therefore have resigned to their fate.

FIGURE 1




Victims' view on the authorities response to the air disaster, Gwammaja, 2002
32%
45%
23%
KEY
Good
Adequate
Inadequate

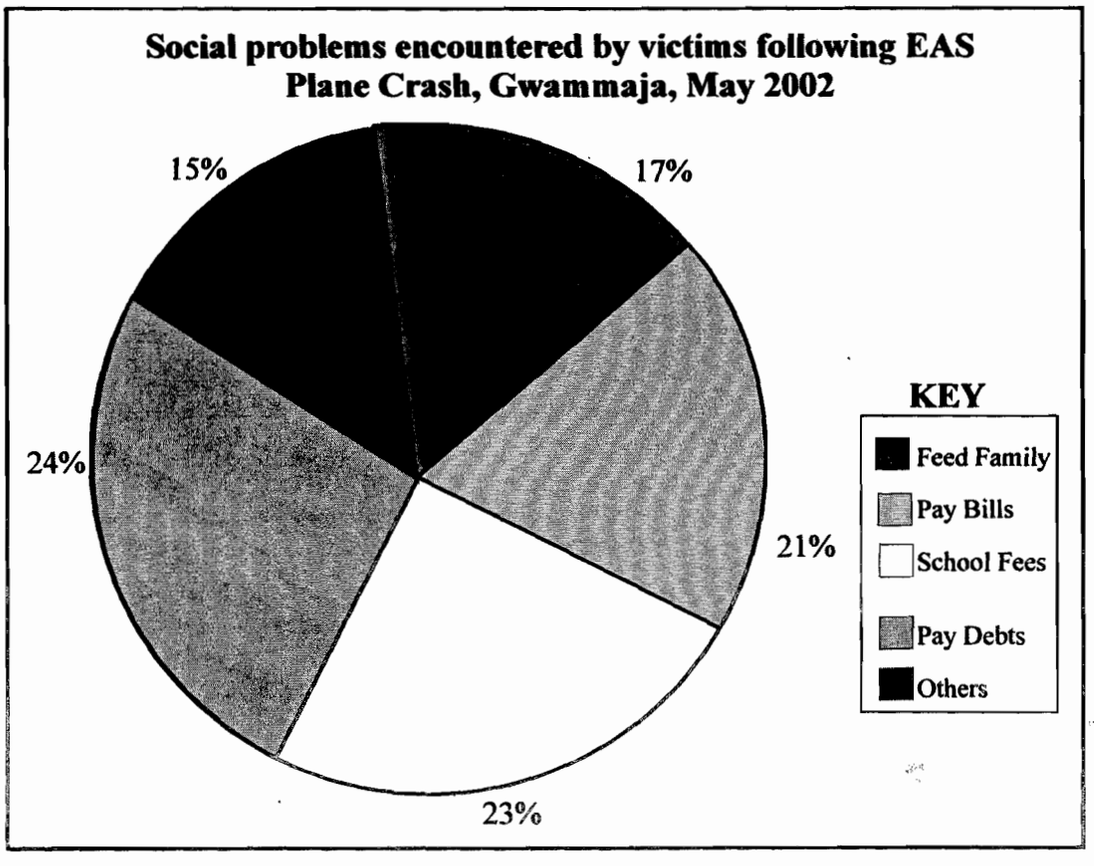

Social problems encountered by victims following EAS Plane Crash, Gwammaja, May 2002
15%
17%
24%
21%
23%
KEY
Feed Family
Pay Bills
School Fees
Pay Debts
Others

TABLE 1 : Mortality by age and sex among inhabitants Gwammaja quarters following the EAS air crash, May 2002.

Age Group (years)	Males	Females	Total (%)
1-4	1	3	4(11.4)
5-9	5	1	6(17.1)
10-14	4	2	6 (17.1)
15-19	5	2	7(20.0)
20-24	1	-	1(2.9)
25-29	3	-	3(8.6)
30-34	4	3	7(20.0)
35-39	1	-	1(2.9)
Total	24	11	35 (100)

TABLE 2: Morbidity by age and sex among inhabitants of G wammaja quarters following EAS air crash May 2002

Age Group (years)	Mals	Females	Total (%)
1-9	7	2	9 (25.0)
10-19	8	4	12(33.3)
20-29	1	5	6(16.7)
30-39	4	3	7(19.4
40-49	1	-	1(2.8)
50-59	1	-	1(2.8)
Total	22	14	36(100)

DISCUSSION.

One of the principal distinguishing characteristics of aviation, compared to other transportation modes, is the high-speed and vertical nature of operations. Because of these unique features, aviation has always posed the highest risk of injuries and fatalities, given an accident of almost any transportation mode.(5)

Twice the number of fatalities and injuries were recorded among males compared to females as many of the victims on the ground were outside their houses when the crash occurred.(6) The E.A.S. aircraft was reported to have developed engine trouble shortly after it took off and it exploded and caught fire when it hit the ground in the populated residential area.(4,6,7) Thus majority of morbidities were due to burns.

The morbidities and mortalities in Gwammaja are not unconnected with the proximity of the locality to the airport. Aiken (8) reported that most aircraft accidents occur near airports because the dengerous phase of flight are take-off and landing, and that most aircraft accidents causing injuries to people on the ground occur in or near densely populated areas.

Fatal accidents in Nigeria to date stand at 30 with a survival rate of 34.5%.(9) It is, however, reported that Nigeria's heavily competitive air carriers have been locked in a price war in recent times. Some Nigerians have feared maintenance would suffer as a result.(10) This can increase the rate of aircraft accident.

Although the Kano state government appointed an ad-hoc Community Aid Committee to handle the crisis soon after the crash, this notwithstanding up to 45% of the respondents opined that concerned authorities did not handle the situation satisfactorily.

Results also reveal varied social problems that afflict a number of victims of the air crash. These include inability to redeem debts, inability to pay children's school fees, inability to pay utility bills and inability to feed families. Apart from loss of lives it was reported that a number of houses were completely destroyed and properties worth millions of naira were

destroyed.(6) Although the destroyed and damaged houses had since been rebuilt, the victims have not yet moved into them. The E.A.S. airline is yet to pay compensation to the victims.

These reports highlight the need for measures to improve management of disasters in both crisis and routine situations. Modern disaster management goes beyond post-event disaster assistance; it includes pre-disaster planning and preparedness activities, organizational planning, public relations and many other fields.(11) Fagbemi (12) defined disaster management as the systemic observation and analysis of disasters to improve measures relating to prevention, mitigation, preparedness, emergency response and recovery. The National Emergency Management Agency in Nigeria(NEMA) needs to include air disaster in the list of types of disasters deals within Nigeria. This will enable such disasters to be handled more effectively than what obtains at present. The Nigerian authorities need to be strict about maintenance of aircraft used by local airlines in the country.

The various social problems of the affected persons, which exist to date, need to be addressed by concerned authorities. Houses rebuilt should be handed over to affected victims while the E.A.S. airlines should hasten the payment of compensation to victims.

CONCLUSION.

Management principles of air crash disaster apply in both routine and crisis situations.

The findings in this study will be of use for the reconstructive aspect of routine disaster management and they also bring to light the need to enhance air disaster preparedness activities to avoid being caught unawares when the disaster occurs.

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REFERENCES

1. Rutherford W.H. An analysis of civil air crash statistics 1977-86 for the purposes of planning disaster exercises. Injury (1988): 19(6):384-8
2. Rowles J.M Learmonth D.J. Tait G. R. Macey A.C. Survivors of the M1 air crash. Outcome of injuries after 1 year. The Nottingham, Leicester, Derby and Belfast study group. Injury (1991):22 (5):362-4.
3. Ludes B, Tracqui A, Pfitzinger H Kintz ,P; Levy F, Disteldorf M, Hutt J. M et. Al.medco-legal investigations of the Airbus, A 320 cresh upon Mount Ste-Odile, France. Journal of Forensic science (1994): 39(5): 1147-52
4. http; www. Kano Online com S ummaty of Aircraft Accidents in Kano
5. Encyclopaedia B ritannica 2003. Ultimate Reference Suite C D ROM. C onventional Control Techniques from Traffic Control 1-154,11052
6. Weekly Trust Newspaper, Vol 5 NO 17 May 10-16.2002 p2-3
7. AIRwise Nwes (online), Nigeria Mourns Air Crash Victims, Sunday November 24,2002
8. Aiken T. (online) Small Airplane Safety in Densely populated Areas. FA Aviation News (online)
9. Aviation Safety Network (online); Nigeria Air Safety profile
10. C.B.S.News (online,) Airliner crashes in Nigeria May 6, 2002.
11. Cuny F. C. (online) Memorial continuing Education Series, Principles of Disaster Management, Lesson 1.
12. Fagbemi K.F.Main Disaster Concern In Nigeria. Microsoft power point (online).