



Assessing the Prevalence and Patterns of Elder's Abuse in Imo State, Nigeria: A Rural – Urban Comparative Study

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Authors' contributions

This work was carried out in collaboration between all authors. Authors RUO, CNO, KAU and CBD designed the study and wrote the protocol. Authors RUO, IO, EUN and IAM wrote the first draft of the manuscript and managed the literature searches. Authors UO, TBO and ACI performed the statistical analysis. All authors read and approved the final manuscript.

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ABSTRACT

This study highlighted the 12-months prevalence of elder abuse in rural and urban communities in Imo State and also compared the pattern of elder abuse in both communities.

A cross-sectional study of 371 rural and 314 urban participants aged 60 years and above was conducted between first week of April and last week of June, 2015. Information collated was on abuse types using interviewer administered questionnaire. Data were analysed using descriptive statistics and chi-square. The level of statistical significance (p- value) was set at < 0.05. Participants were recruited using multi-stage random sampling technique.

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The prevalence of elder abuse in the previous 12 months was 14.7% and 9.8% in the rural and urban communities respectively. The pattern of abuse types was financial abuse 30.2%, emotional abuse 26.0%, physical abuse 16.7%, neglect 11.9%, social abuse 1.8% and sexual abuse 1.6% in the rural communities. The pattern in urban communities was financial abuse 29.6%, neglect 13.0%, emotional abuse 8.3%, physical abuse 5.7%, sexual abuse 1.3% and social abuse 0.9%. In conclusion, this study has shown that abuse of the elderly is quite prevalent in both the rural and urban communities. Policies geared towards protecting these vulnerable senior citizens at both state and federal level will help to minimize this menace.

Keywords: Elder abuse; prevalence; pattern; rural-urban communities; Imo state.

1. INTRODUCTION

Elder abuse has received increasing attention over the past decade as a common problem with serious consequences for the health and well-being of old people in both developed and developing countries [1]. The World Health Organisation defined elder abuse as “ a single or repeated act or lack of appropriate action within any relationship where there is expectation of trust, which causes harm or distress to an older person” [2]. The United Nation’s Population Division defined the elderly as people aged 60 years or older and estimated that by 2025, their global population will reach 1.2 billion, up from 600 million in 2004 [3]. One million people will turn sixty years every month with 80% of these from the developing world. Although the proportion of older people out of the total population is higher in developed nations, the percentage of increase of the elderly population is greater in the developing world [3].

Sub-Saharan African (SSA) population is ageing. In the next few decades, the number of older people will increase exponentially from currently 36.6 million to 141 million in 2050 with their population proportion rising from 5 to 10% [4]. Although this is an indication of progress, it has been overshadowed by the increasing prevalence of elder abuse. Older people’s lives in the region are characterized by growing inadequacies in customary family support systems, vulnerability to poverty and exclusion from health services [4]. Sub-Saharan African health systems remain largely inaccessible and/or unresponsive to older people [5].

Previous studies identified five main forms of elder abuse including physical abuse, emotional or psychological abuse, financial exploitation, sexual abuse and neglect [6]. Physical abuse refers to any conduct that violates the physical integrity of an older person such as striking, pushing, force-feeding and improper use of

physical restraints or medications. Emotional abuse includes conduct that causes mental anguish including threat, verbal or non-verbal insults, isolation and humiliation. Banishment to a nursing home, discrimination on the basis of age and false accusations also constitute emotional abuse. Financial abuse involves illegal taking, misuse or concealment of funds, property or assets. Sexual abuse includes conducts that violates the sexual integrity of an older person while neglect refers to intended or unintended failure of a formal or informal caregiver to fulfill any part of a care-giving obligation [6].

Elder abuse has serious negative public health outcomes. Such consequences include permanent damage from physical injury, medication and alcohol dependency, lowered immune system response, chronic eating disorders and malnutrition, self-harm or self-neglect, susceptibility to depression, fearfulness and anxiety, suicidal tendencies and death [7]. The World Health Organisation notes that physical injury may be more severe for older people and there are higher rates of depression found in seniors who experience abuse [8]. Mortality rates are also three times higher for these victims of abuse [9].

Knowledge of the prevalence and pattern of elder abuse in SSA is still low mostly because of the stigma associated with the phenomenon and its hidden nature and lack of consensus on the age at which old age begins between different societies [10]. Nonetheless, there is research evidence showing that the main forms of elder abuse in SSA are physical abuse exacerbated by cultural beliefs and accusation of witch craft [11], and economic abuse characterized by deprivation of property including land, especially for women often leading to destitution as property is inherited by males [10]. Some workers have demonstrated a strong gender difference in the forms and perpetrators of elder abuse. While men including the children of the

elderly are the main perpetrators of physical, emotional and financial abuse, women perpetrate mostly emotional abuse [12]. In Nigeria, there is increasing evidence showing that elder abuse is becoming widespread [13].

Evidence suggests that there are rural and urban differences in the prevalence and pattern of elder abuse. A study in Illinois, USA, showed statistically significant differences in experience of emotional abuse, passive neglect and deprivation between rural and urban dwellers. However, there was no difference in demographic characteristics, physical abuse, confinement and financial exploitation [14]. Among those with elder mistreatment in a community dwelling Chinese population, rural victims were more likely to be women, have lower levels of education and income, have lower levels of health status and quality of life, have worse change in recent health and have lower levels of psychosocial well-being compared to their urban counterpart [15]. Above findings were collaborated by a study on elder abuse among older women in South-Western Nigeria which showed in addition that the oldest old and those that are unmarried are exposed to higher risk of abuse [13].

In this study, we compared the prevalence and pattern of elder abuse in rural and urban communities in Imo State, South Eastern Nigeria.

2. MATERIALS AND METHODS

2.1 Study Area

The study was conducted in two local government areas (LGAs) of Imo State, South Eastern Nigeria – Owerri municipal and Mbaitolu.

Owerri municipal is an urban LGA and the administrative headquarters of the state with geographical coordinates of 5°28'35"N, 7°1'33"E. It has a population of 127,213 according to the 2006 national census with a population density of about 5906 per square kilometer [16]. Its estimated population in 2015 is 179,023 given an annual population growth rate of 3.2% for the state. It consists of 751 enumeration areas [16].

Mbaitoli is a rural LGA and the most populous LGA in the state with a total population of 237,555 people according to the 2006 population census [16]. It lies between latitude 5°35'16"N and longitude 7°3'0"E. The 2015 population for the LGA is estimated at 334,308 using 3.2%

annual growth rate. The population density is about 1038 per square kilometer [16]. The number of enumeration areas as demarcated by the National Population Commission in 2006 was 1387 [16].

2.2 Study Design

This was a cross sectional comparative descriptive study using interviewer administered questionnaire.

2.3 Study Population

The respondents were consenting residents (men and women) aged 60 years and above in the selected households in the chosen LGAs. Those included in the study must have been resident in their community for 12 months or more. Respondents who were unable to provide information themselves due to dementia, dumbness, deafness, psychiatric illness or any other communication problems were excluded from the study.

2.4 Sample Size Determination

The sample size for this study was determined using the formula for comparing two proportions.

$$n = \frac{(Z_{1-\alpha/2} + Z_{1-\beta})^2 [P_1(1 - P_1) + P_2(1 - P_2)]}{(P_1 - P_2)^2}$$

A minimum sample size of 203 for each community was arrived at using the above formula with the assumption of 7.08% and 17.5% as the prevalence of elder abuse in rural and urban communities respectively from a previous study [17] and at 5% tolerable margin of error at 95% confidence interval and power of 90%. Considering a non-response rate of 10%, the calculated sample size was adjusted to 451 respondents for the two communities. However, 314 urban and 371 rural respondents participated in this study giving a total sample size of 685 respondents.

2.5 Sampling Technique

The sampling technique used for this study was multistage (3 stages) sampling technique. The first stage involved the selection of Owerri municipal from the 5 urban LGAs and Mbaitoli LGA from the 22 rural LGAs through simple random sampling. One local government area each was selected from the rural and urban LGAs despite the disparity in the number of rural

and urban LGAs because of the homogeneity in language, culture, religion and same geographic area of the people in the state [18].

The second stage involved the selection of the primary sampling units (enumeration areas) from the LGAs. The enumeration areas (EAs) are geographic clusters that have been clearly demarcated by the National Population Commission. Using random sampling technique, ten EAs were selected out of 751 EAs in Owerri Municipal and twenty were selected from 1387 EAs in Mbaitoli LGA. The criterion for this selection is that the ratio of the total population (127,213 versus 237,555) and EAs (751 versus 1387) in the selected urban and rural LGAs is approximately 1:2 [16].

The third stage involved the selection of the respondents that were interviewed from the households in the enumeration areas. Only one eligible respondent per household was interviewed during the survey. In households with more than one eligible respondent, one person was selected by simple balloting.

2.6 Instruments for Data Collection

The questionnaire used for this study was adapted from a standardized questionnaire on elder abuse and neglect developed by the World Health Organisation (WHO) [19]. It was pretested for comprehensibility, appropriateness of language, sensitivity of questions and average duration for administration. The questionnaire had three sections consisting of social history, family dynamics, awareness, knowledge and perception of elder abuse.

2.7 Data Collection

The questionnaires were administered on eligible respondents in their homes. A total of 685 respondents were interviewed between first week of April and the last week of June, 2015. These were made up of 314 urban and 371 rural respondents.

2.8 Data Analysis

Analyses were conducted using the Statistical Package for Social Sciences (SPSS) version 20. Summary statistics were generated and presented using frequency tables. Inferential statistics to test for associations between variables was done using chi-square test. Level of statistical significance was set at 5%.

In other to enable comparison with recent elder abuse prevalence studies, this research adopted an operational definition of abuse and neglect that has been used in other recent international studies. The operational definition defines elder abuse and neglect as any episode of financial, physical or sexual abuse or ≥ 10 episodes of psychological abuse or neglect or episodes of psychological abuse or neglect that had a serious impact on the older person, occurring in the previous 12 months and perpetrated by a person in a position of trust (family, close friends or health worker) [20].

2.9 Ethical Considerations

Ethical clearance for this study was obtained from the Imo State University Teaching Hospital (IMSUTH) Ethical Review Committee. Permission for the study was also sought from the local government authorities, community leaders and heads of households. Each respondent's consent was obtained after the objective of the study and the rights of the respondent were clearly spelt out to a prospective respondent. The questionnaires were anonymously filled and they were not available to persons not directly involved with the study.

2.10 Limitations of Study

The conclusions drawn from this study reflect responses of cognitively intact community dwelling sub-population of elderly people; prevalence and pattern of elder abuse should be considered in that context. Generalization of findings of this study to what may be the groups most at risk for abuse, the cognitively impaired and hospitalized elderly is not appropriate. For these at-risk groups, alternative methods may be required.

3. RESULTS

3.1 Sociodemographic Data

Seven hundred and thirty eligible participants were identified for this study comprising 380 rural and 350 urban respondents. Completed interviews were conducted with 371 rural and 314 urban elders. This gave a response rate of 97.6% and 89.7% in the rural and urban areas respectively. The overall response rate for this study was 93.8%.

Majority of the respondents were males. It was 53.8% in urban areas compared to 49.3% in rural

area. The mean age of all participants was 70.0 ± 8.8 years with mean age in the rural area (70.5 ± 8.5) being slightly higher than the urban area (69.5 ± 7.9), p = 0.07. A higher proportion of the rural respondents (79.8%) were married compared to their urban counterpart (58.3%). Also, majority of the widowed (38.5% versus 17.3%) and divorced (2.5% versus 1.1%) respondents reside in the urban area. Respondents in urban area were significantly better educated as 17.5% had tertiary education compared to 6.2% of the rural respondents. All respondents were of Igbo tribe Table 1.

3.2 Awareness and Perception of Elder Abuse

Almost all the elders (98.8%) in both rural and urban communities were aware/have heard of elder abuse ($\chi^2 = 0.28$, p = 0.63). The most common type of abuse known to the respondents was emotional abuse (88.8%), followed by sexual abuse (41.6%), physical abuse (33.7%), social abuse (23.2%) and financial abuse (15.0%). Awareness of sexual abuse was commoner in rural area (47.4%) than in urban area (34.7%), while awareness of physical abuse was commoner in urban area (45.9%) than in rural area (23.5%). On their perception of the common types of elder abuse prevalent in their communities, emotional/psychological abuse (74.9%) were considered the most common type

in both urban (73.6%) and rural (76.0%) communities while sexual abuse was considered the least common Table 2.

3.3 Source of Information on Elder Abuse

Commonest source of information on elder abuse in both rural and urban areas was from neighbours. Other important sources were relations, village meeting, place of worship and market Fig. 1.

3.4 Prevalence and Pattern of Elder Abuse

Majority (78.8%) of the elders have been abused, and the proportion of elders who have been abused were significantly higher in rural (88.7%) than in urban areas (67.2%). Emotional/psychological abuse (86.5%) was the most common type of abuse suffered by the elders; followed by neglect (26.1%). Physical abuse and financial abuse were 17.9% and 12.0% respectively. While elders in rural communities were more likely to suffer from any form of elder abuse ($\chi^2=47.03$, p<0.001), their counterparts in urban area were more likely to receive physical (21.8%) or financial (21.8%) abuse. Also, majority (72.0%) of the elders were aware of their counterparts receiving abuse, particularly those in rural area (87.3%) compared to 53.8% in urban areas Table 3.

Table 1. Sociodemographic profile of the respondents by their residence

Characteristics	Urban n=314(%)	Rural n=371(%)	Total n=685(%)	χ^2	p-value
Gender					
Male	169(53.8)	183(49.3)	352(51.4)	1.38	0.27
Female	145(46.2)	188(50.7)	333(48.6)		
Age (years)					
<70	185(58.9)	204(55.0)	389(56.8)	7.01	0.07
70 – 79	86(27.4)	90(24.3)	176(25.7)		
80 – 89	36(11.5)	58(15.6)	94(13.7)		
90+	7(2.2)	19(5.1)	26(3.8)		
Mean ± SD	69.5±7.9	70.5±8.5	70.0±8.8		
Marital status					
Married	183(58.3)	296(79.8)	479(69.9)	43.89	<0.001
Widowed	121(38.5)	64(17.3)	185(27.0)		
Divorced	8(2.5)	4(1.1)	12(1.8)		
Never married	2(0.6)	7(1.9)	9(1.3)		
Level of education					
No formal education	26(8.3)	142(38.3)	168(24.5)	106.45	<0.001
Primary	148(47.1)	166(44.7)	314(45.8)		
Secondary	85(27.1)	40(10.8)	125(18.2)		
Tertiary	55(17.5)	23(6.2)	78(11.4)		

Table 2. Awareness and knowledge of elder abuse among the rural and urban respondents

Characteristics	Urban n = 314 (%)	Rural n =371 (%)	Total n = 685(%)	X ²	p-value
Awareness of elder abuse					
Yes	311 (99.0)	366 (98.7)	677 (98.8)	0.28	0.63
No	3 (1.0)	5 (1.3)	8 (1.2)		
Types of elder abuse known* (MRA)					
Emotional	271 (86.3)	337 (90.8)	608 (88.8)	101.13	0.000
Sexual	109 (34.7)	176 (47.4)	285 (41.6)		
Physical	144 (45.9)	87 (23.5)	231 (33.7)		
Social	79 (25.2)	80 (21.6)	159 (23.2)		
Financial	92 (29.3)	11 (3.0)	103 (15.0)		
Common types of elder abuse prevalent in their community* (MRA)					
Emotional/psychological	231 (73.6)	282 (76.0)	513 (74.9)	18.83	0.001
Neglect	61 (19.4)	93 (25.1)	154 (22.5)		
Physical	54 (17.2)	36 (9.7)	90 (13.1)		
Financial	22 (7.0)	11 (3.0)	33 (4.8)		
Sexual	3 (1.0)	0 (0.0)	3 (0.4)		

* (MRA -Multiple responses applicable)

Table 3. Prevalence of elder abuse among the respondents by urban and rural residence

Variable	Urban n=314 (%)	Rural n=371 (%)	Total n = 685 (%)	X'	p-value
Ever been abused					
No	103 (32.8)	42 (11.3)	145 (21.2)	47.03	<0.001
Yes	211 (67.2)	329 (88.7)	540 (78.8)		
Type of abuse received* n = 211 (%) n = 371 (%) n = 685 (%)					
Emotional/psychological	170 (80.6)	297 (90.3)	467 (86.5)	88.92	0.000
Neglect	11 (5.2)	130 (39.5)	141 (26.1)		
Physical	46 (21.8)	51 (15.5)	97 (17.9)		
Financial	46 (21.8)	19 (5.8)	65 (12.0)		
Sexual	3 (1.4)	4 (1.2)	7 (1.3)		
Awareness of an elder receiving abuse in your community					
No	145 (46.2)	47 (12.7)	192 (28.0)	93.01	< 0.001
Yes	169 (53.8)	324 (87.3)	493 (72.0)		

*Multiple responses applicable

Neglect (p-value = 0.018), physical abuse (p-value = 0.000), emotional abuse (p-value = 0.000), and social abuse (p-value = 0.000) were statistically significant between the rural and urban communities unlike financial abuse (p-value = 0.350) and sexual abuse (p-value = 0.417). Using the operational definition of elder abuse and neglect adopted by recent international studies and highlighted in data analysis section of this study [20], the prevalence of neglect was 11.9% in the rural area and 13.0% in the urban area. Physical and emotional abuses were about 3 times more prevalent in the rural communities (16.7% and 26.0% respectively) compared to the urban communities

(5.7% and 8.3% respectively) unlike financial abuse (30.2% versus 29.6%) and sexual abuse (1.6% versus 1.3%) where the prevalence were similar in both rural and urban communities. Social abuse was uncommon in both rural (1.8%) and urban (0.9%) communities Table 4.

With the exception of neglect, all the other forms of elderly abuse were more prevalent in the rural communities. The overall prevalence of all forms of elderly abuse in this study was 88.2% in the rural area and 58.8% in the urban area. The average prevalence is 14.7% and 9.8% in the rural and urban communities respectively.

Table 4. Pattern and Intensity of elder abuse exposure in the last one year by residence

Abuse type	Urban n = 314(%)	Rural n = 371(%)	Total n = 685(%)	χ²	p-value
Neglect					
Only once	273 (86.9)	327 (88.1)	600 (87.6)	10.14	0.018
Few times	35 (11.1)	24 (6.5)	59 (8.6)		
Monthly	4 (1.3)	16 (4.3)	20 (2.9)		
Weekly	2 (0.6)	4 (1.1)	6 (0.9)		
Physical abuse					
Never	296 (94.3)	309 (83.3)	605 (88.3)	19.92	0.000
Only once	17 (5.4)	58 (15.6)	75 (10.9)		
Few times	1 (0.3)	4 (1.1)	5 (0.7)		
Emotional abuse					
Never	268 (85.4)	163 (43.9)	431 (62.9)	129.11	0.000
Only once	20 (6.4)	111 (29.9)	131 (19.1)		
Few times	21 (6.7)	81 (21.8)	102 (14.9)		
Monthly	4 (1.3)	5 (1.3)	9 (1.3)		
Weekly	1 (0.3)	9 (2.4)	10 (1.5)		
Always	0 (0.0)	2 (0.5)	2 (0.3)		
Social abuse					
Never	279 (88.9)	280 (75.5)	559 (81.6)	22.13	0.000
Only once	32 (10.2)	84 (22.6)	116 (16.9)		
Few times	0 (0.0)	3 (0.8)	3 (0.4)		
Monthly	2 (0.6)	2 (0.5)	4 (0.6)		
Weekly	1 (0.3)	2 (0.5)	3 (0.4)		
Financial abuse					
Never	221 (70.4)	259 (69.8)	480 (70.1)	3.28	0.350
Only once	67 (21.3)	71 (19.1)	138 (20.1)		
Few times	25 (8.0)	41 (11.1)	66 (9.6)		
Monthly	1 (0.3)	0 (0.0)	1 (0.1)		
Sexual abuse					
Never	310 (98.7)	365 (98.4)	675 (98.5)	1.75	0.417
Only once	4 (1.3)	4 (1.1)	8 (1.2)		
Few times	0 (0.0)	2 (0.5)	2 (0.3)		

4. DISCUSSION

As the population of the elderly increases in Nigeria and other parts of the world, elder abuse is becoming common and is an important public health issue with a lot of negative consequences. Despite the large population at risk, its significant morbidity and mortality, and substantial cost to society, elder abuse continues to be under-recognised and under-reported [21]. This study highlighted the differences in prevalence and pattern of elder abuse in urban and rural communities in Imo State, South Eastern Nigeria.

Awareness of elder abuse among respondents in this study is surprisingly very high (about 99%) in both rural and urban communities given that elder abuse is rarely discussed in public domain in this part of the world. The commonest type of abuse known to the respondents and also being

experienced by themselves and some other elders in both the urban and rural communities is emotional/psychological abuse. Surprisingly, a third of elders in urban communities and almost half of those in rural communities claimed knowledge of sexual abuse of the aged in their locality. There is paucity of research works on the awareness and pattern of abuse from the perspective of the elderly in the community. Most available data were on prevalence and determinants of elderly abuse and not on awareness. Cadmus et al. in a study carried out in Ibadan, South Western Nigeria found social abuse to be the commonest form of abuse in both urban and rural communities [17]. A work done in South Africa reported physical abuse as the commonest [22], while in United States of America [23] and United Kingdom [24], neglect is the commonest form of elderly abuse.

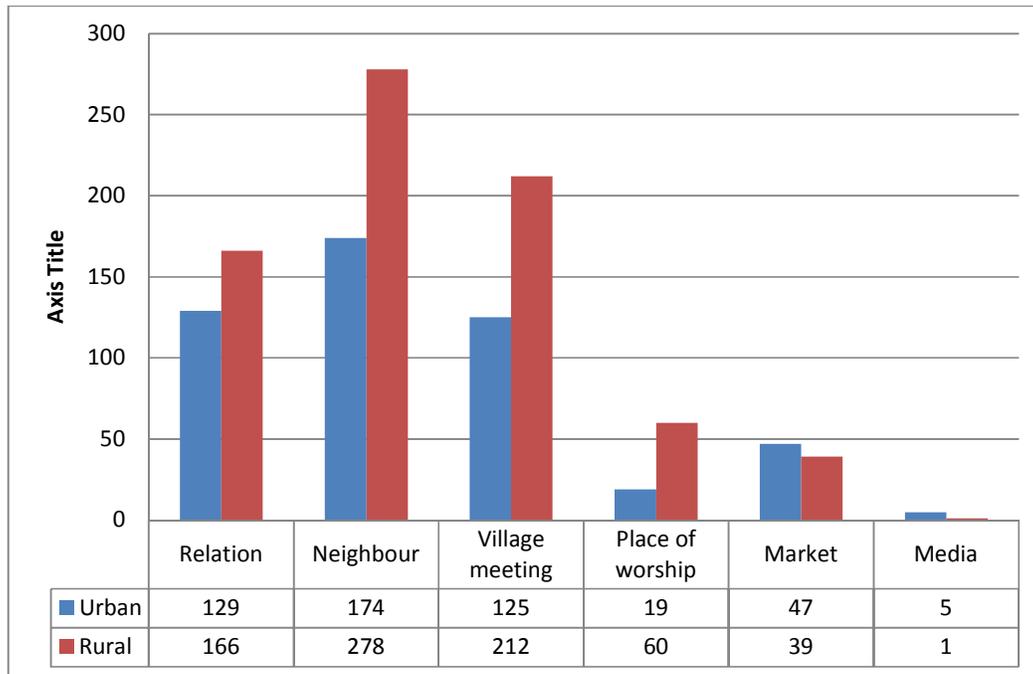


Fig. 1. Source of information on elder abuse in the surveyed urban and rural communities

Still on elderly abuse from the perspective of the respondents, this survey also revealed that elder abuse is indeed very common in our society as approximately 7 out of every 10 elders in the urban areas had experienced one form of abuse or the other. This is even higher in rural communities where 9 out of every 10 elders said that they have received one form of abuse or the other. A study conducted in Mafikeng local municipality in South Africa, 61.7% of the elders studied reported ever experiencing elderly abuse in their community [22]. Also 53.8% of urban respondents in our study and 87.3% of their rural counterpart said that they know of at least one elder who was being abused as at the time of the survey. These figures showed how deeply rooted the menace of elder abuse is in our society especially in the rural area.

In determining the prevalence of different forms of elderly abuse in this study, elders who reported being abused a few times, weekly, monthly or always in the preceding 12 months were included in assessing the prevalence of neglect, social and emotional abuse while those who reported being abused only once were excluded. For physical, financial and sexual abuse, a single incidence is considered significant in this incidence determination.

Using the above definition, the prevalence of neglect was 11.9% in the rural area and 13.0% in the urban area. Physical and emotional abuses were about 3 times more prevalent in the rural communities (16.7% and 26.0% respectively) compared to the urban communities (5.7% and 8.3% respectively) unlike financial abuse (30.2% versus 29.6%) and sexual abuse (1.6% versus 1.3%) where the prevalence were similar in both rural and urban communities. Social abuse was uncommon in both rural (1.8%) and urban (0.9%) communities.

With the exception of neglect, all the other forms of elderly abuse were more prevalent in the rural communities. The overall prevalence of all forms of elderly abuse in this study was 88.2% in the rural area and 58.8% in the urban area. The average prevalence is 14.7% and 9.8% in the rural and urban communities respectively.

This finding significantly differs from what was reported by Cadmus et al. in their rural – urban comparison of elderly abuse in Oyo State, South-Western Nigeria. They reported an overall prevalence of 28.3% and 87.5% and an average prevalence of 7.08% and 17.5% in the rural and urban communities respectively [17]. A study in a rural community in South Africa reported an overall prevalence of 61.7% for all forms of elderly abuse [22]. Dong and Simon in their study

on urban and rural variations in the characteristics associated with elderly abuse in a community – dwelling Chinese population concurs with findings in this study in that elderly abuse is more prevalent in rural communities. They reported a prevalence of 44.4% and 31.2% in the rural and urban communities respectively [15].

The prevalence of elderly abuse is much lower in developed countries of Europe and America in comparison to the low and medium income countries (LMICs) of Africa and Asia. Acierno et al. reported an overall prevalence of 11.4% in a nationally representative survey in United States of America [25]. In Spain, Marmolejo reported an overall prevalence of only 0.8% [26] while O' Keeffe et al. in 2007 reported an overall prevalence of 2.6% in the United Kingdom [27]. Work done in Germany reported a prevalence of 3.1% [28]. Only Israel reported a prevalence (35.0%) that is comparable to what obtains in LMICs [29]. The high level of awareness of personal rights and privileges as well as high level of social protection afforded citizens in these developed countries by their government could explain the low prevalence of elderly abuse in these countries.

As regards pattern of elderly abuse, the commonest form of elderly abuse in both rural and urban communities in this study was financial abuse contributing 30.2% and 29.6% respectively in both settings. This is followed by emotional abuse (26.0%) in the rural area and neglect (13.0%) in the urban area. Physical abuse (16.7%) is the third commonest form of elderly abuse in the rural communities followed by neglect (11.9%), social abuse (1.8%) and sexual abuse (1.6%). For the urban communities, emotional abuse (8.3%) is the third most common followed by physical abuse (5.7%), sexual abuse (1.3%) and social abuse (0.9%).

The high level of financial abuse in this study could be attributed to the equally high level of youth unemployment in the country [30] especially in South Eastern Nigeria. This study identified children and grandchildren as the main perpetrators of financial abuse of the elderly.

Most studies [17,23,32] identified sexual abuse as the least common form of elderly abuse but among our urban aged, sexual abuse was even more predominant than social abuse. This may

be related to the high level of widowhood among the urban participants in this study.

A study in South Western Nigeria identified social abuse as the commonest form of elderly abuse in both rural and urban communities [17] while another study conducted in Akwa – Ibom State, South Southern Nigeria reported neglect (16.31%) as the most common form of elderly abuse followed by financial abuse (15.01%), emotional abuse (14.05%) and physical abuse (12.78%) [31]. The Akwa -Ibom study did not explore sexual abuse.

In the United States of America, potential neglect (5.9%) is the commonest form of elderly abuse followed by financial abuse (5.2%), emotional abuse (4.6%), physical abuse (1.6%) and sexual abuse (0.6%) [23]. The pattern in the United Kingdom is the same with the United States of America. Neglect (1.1%) is also the commonest type of elderly abuse followed by financial abuse (0.7%), emotional abuse (0.4%), physical abuse (0.4%) and sexual abuse (0.2%) [32].

5. CONCLUSIONS AND RECOMMENDATIONS

This study concludes that the prevalence of elderly abuse in Imo State and by extension, South-Eastern Nigeria is high in both the rural and urban communities with the most common form being financial abuse. Against this background, the following recommendations are made.

1. The Nigerian government should formulate a national policy for the elderly which will serve to protect the right of these senior citizens, stipulating penalties for any person(s) or groups of individuals who violate such policy. The state governments should also formulate similar policies to address the peculiarities of their area.
2. Considering what retired workers go through in Nigeria in a bid to receive their retirement benefits, payment of pensions and gratuities should be packaged and delivered in such manner that will eliminate suffering and institutionalized abuse the senior citizens are subjected to by government agencies in the course of receiving their pension and gratuities after years of active service to their fatherland.
3. Family members and the society at large should show more love, care and attention

to the elderly bearing in mind that we all pray to achieve old age.

4. Government, non-governmental organisations (NGOs) and kind hearted affluent members of the society should set up institutional homes with nursing facilities for the elderly where those without homes or persons to take care of them can go for refuge.
5. Massive job creation for teeming Nigerian youths will have a positive impact in reducing the prevalence of elderly abuse.
6. Given that physical and emotional types of abuse were three times commoner in the rural compared to the urban communities, there is need to strengthen the traditional institutions and also increase police presence in the rural communities in order to minimise such abuses.

CONSENT

As per international standard or university standard, patient's written consent has been collected and preserved by the authors.

ETHICAL APPROVAL

As per international standard or university standard, written approval of Ethics committee has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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