

Social Dimensions of Musculoskeletal Pain Experiences among the Elderly in Southwestern Nigeria

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How to cite this paper: Ayegboyin, M. and Salami, K.K. (2019) Social Dimensions of Musculoskeletal Pain Experiences among the Elderly in Southwestern Nigeria. *Health*, 11, 953-970.

<https://doi.org/10.4236/health.2019.117077>

Received: April 15, 2019

Accepted: July 27, 2019

Published: July 30, 2019

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Abstract

Musculoskeletal pain (MS pain) in the elderly has attracted more medical focus than its social dimensions. This cross-sectional survey design study, conducted in southwestern Nigeria, through a multi-stage sampling technique, documented reported MS pain in 1280 consented elderly using 3-scale pain experiences categorized as acute, semi-acute, and chronic. Also, 12 In-depth Interviews (IDIs) among elderly persons, and 15 Key Informant Interviews (KIIs) among orthodox- and traditional medicine practitioners were conducted. The age of the respondents was 65.5 ± 4 , while about half (51.1%) had no formal education. Majority (76.8%) of the respondents perceived MS pain as normal process of old age. Occupational life history of the respondents ranked the highest as perceived reason for having MS pain, while the knees (19.6%) were the most identified pained location among others in the body. A high significant relationship between neck and shoulders pain ($\chi^2 = 0.000$) was however found. Social construction dimensions of the elderly were narrated, while MS pain was considered as sickness of the elders. There is need for orientation for the elderly and their helpers on the social dimensions of old age relative to Nigeria.

Keywords

Ageing Population, Older Persons, Musculoskeletal Pain, Social Dimensions, Social Security

1. Introduction

Musculoskeletal pain, a non-communicable disease, which contributes to years lived with disability (YLD) among individuals, accounted for high mortality in sub-Saharan Africa [1]. The elderly or older adults as the case maybe have been

considered the most at risk of experiencing musculoskeletal conditions in society [2]. Musculoskeletal pain ranks high as most health challenge of the elderly and it is estimated that about 60% to 80% of the people above 60 years experienced at least some levels of chronic pain globally [3]. The health of the aged people in Nigeria has great impact on the aging population in sub-Saharan Africa [4]. In spite of this, Nigeria has still not initiated a concrete national policy for the care of the elderly [5]. For people to grow old peacefully and gracefully, the health of the elderly must be taken into cognizance as it has influence on active aging, while the impact of musculoskeletal pain among elderly depends on individual biological, psychological, social and demographic factors [6]. The National Academy of Science [7] posits that biological factors that can cause pain include composition of sex, genetics to injuries, diseases and pain receptors in the body. The psychological factors that contribute to pain include fear of pain, anger, depression, and emotional stress among others. However, social factors which influence pain experiences include inability to communicate pain, cultural norms, demands of the work environment, access to medical care, family attitudes and cultural beliefs [7].

The risk of musculoskeletal pain is affected by demographic factors such as sex, income, education, ethnic group, urban or rural living and age group [8]. Some other factors that contribute to pain may include prolonged sitting, poor postures, exposure to whole-body vibration, long driving time, heavy lifting, manual materials handling, poor diet [9] [10], obesity, and lack of physical activity [11]. Musculoskeletal pain has no age-restriction, hence, children, teenagers, adults as well as pregnant women also experience pains, however, it is more intense among the elderly. Epidemiologically, about 21% of the population below age 60 face challenges of chronic pain globally [1] [12]. Evidence has however shown that musculoskeletal pain grows with age and about 75% of elderly people globally experience persistent pain [13].

As observed [14], the pain experience by individuals could be more terrible than death itself and many people still die from avoidable musculoskeletal pain, NICE [8] also noted that most elderly still perceive musculoskeletal pain experience as normal aging process due to bodily “wear and tear”. Significantly, the major causes of musculoskeletal pain among elderly are varied [1] and may include a result of disorders in the bone, joints, muscles, tendons, ligaments or a combination of these disorders and injuries sustained over time [15]. Life course trajectory can also promote the way elderly feel pain. For instance, musculoskeletal pain conditions among retired military personnel are significantly worse than the experiences of the general public [16].

The turning points of the elderly could also attract adverse health and social effects on the elderly and their generations [17]. Experiences of the elders such as health challenges from musculoskeletal pain without adequate care may reduce their performance [18] as custodians of information and wisdom as well as great resources for younger generations [19] at household and societal levels.

Aging stage can actually push the elderly out of their sources of income as they are less active in their economic contribution to their workplace yet the elderly medical expenses tend to rise at that time [20]. Hence, *agbalagba* (the noble aged) can become *agbalangba* (the ignoble aged) retrogressively, as observed by Omobowale [21]. However, most elderly in Nigeria are unable to carter for their health needs, while comprehensive free health care services are unavailable specifically for the elderly population in Nigeria [22].

Musculoskeletal pain experiences limit physical activity of older adults and may lead to a cycle of restriction, decreased participation in social engagement and meaningful activities, increased body weight and disability status [23]. The impact of such experiences may also lead to chronic problems in initiating and maintaining sleep, a direct link to increase in depression and suicidal ideation in older people. Chronic musculoskeletal pain experience was observed a major contributor to falls, while falls is a major cause of death among the elderly globally [24]. Besides, the elderly also experienced other social issues such as loneliness, and discrimination after retirement, hence having negative impact on peaceful aging. This study examined the social dimensions of musculoskeletal pain among elderly of Southwestern, Nigeria.

2. Methods and Materials

2.1. Study Area

This study, conducted in Oyo State, located in Southwestern geopolitical zone of Nigeria, lies on latitude 8 degree and longitude 4 degree east. The State is bound in the south by Ogun State and partially by the Republic of Benin, in the east by Osun State and in the north by Kwara State. It covers 27,249 square kilometres landmass with total population of 5,580,894 and with elderly population of 327,301 shared into 172,547 males and 154,754 females [25]. The State has thirty-three local government areas (LGAs) which fall into three senatorial districts vis-à-vis Oyo Central, Oyo North and Oyo South. Oyo Central Senatorial District has 11 LGAs, Oyo North Senatorial District consists of 13 LGAs, while Oyo South Senatorial District has 9 LGAs.

2.2. Study Design and Sampling Procedure

This was a cross-sectional survey design which utilised triangulation of quantitative and qualitative methods. This study was conducted between July and September, 2017 among the elderly who had attained a minimum age of 60 years. For the quantitative method, multi-stage sampling technique was employed to select Oyo State which has the highest elderly population (327,296) in the southwest zone of Nigeria. With 33 LGAs in the State, all the LGAs were clustered into the three senatorial districts from which nine (9) LGAs (Afijio, Atisbo, Ibadan South-East, Lagelu, Iwajowa, Ibadan North-West, Oyo East, Olorunsogo, and Ido) were selected for questionnaire administration. The total sample size for this was 1320 elderly people who attained 60 years as at the time

of the survey and at the same time had experienced continuous MS pain for at least up to thirty days as inclusion criteria for this study. Although 1320 copies of a pretested questionnaire were administered among the elderly, only 1280 copies were adequate for the study analysis at 97.0% returned rate.

In-depth interview (IDI) was conducted among selected elderly and key informant interview (KII) was conducted among health officers, patent medicine vendors (PMVs) and traditional healers. The selection of LGAs for the IDI sessions was based on the three selected LGAs meant for the quantitative data. After the full administration of questionnaire in all the three selected LGAs, effort was made, through balloting, to identify 2 elderly men and 2 elderly women who reportedly experienced acute MS pain and chronic MS pain during the course of questionnaire administration. These selected elderly formed the participants for the IDI.

2.3. Data Collection Procedures

This study used pretested interviewer-administered questionnaire, in-depth interview (IDI) and key informant interview (KII) guides. Data were collected by eight trained research assistants and two supervisors who are versatile in social research. All the field staff were trained on the use of the instruments for data collection, how to locate study areas, identification of eligible participants, and how to operate digital tape for recording and transcription. At the end of the training, the instruments for data collection were pretested in a local government that was not listed for final data collection. At the end, those questions that were either not well worded, or sounded confusing and not clear to respondents were removed. Some questions that were repeated were also eliminated. Being a larger study, the questionnaire used has 11 sections (sections A-K) that addressed; sociodemographic information of respondents, perceived causes of MS pain, patterns of MS pain, effect of MS pain, illness behaviour of the elderly, and health-seeking pathways. Other sections addressed; treatment sources of MS pain, decision making process, sedentary behaviours and MS pain, and social supports for the elderly. All the administered copies of questionnaire for each day were collated by the researchers; questionnaire was cross-checked and correction was made where necessary. The duly cleaned copies of the questionnaire were locked up in a safe place where only the researchers had access. For proper documentation of IDI and KII sessions, each of the sessions was anchored by a moderator and a note taker. Each interview was properly recorded to ensure accurate transcription and interpretation.

2.4. Ethical Consideration

Ethical principles governing human research was observed at all stages of the research. For instance, consent of all the respondents was sought for their participation, participants were made to know the main focus of the research, they were made to know that participation was voluntary and that they were at liberty

to discontinue with the interview at any time they so desire. All these were in addition to ethical approval sought from the University of Ibadan Social Sciences and Humanity Ethical Review Committee.

2.5. Data Management and Analysis

Quantitative data were entered into the computer for analysis. Statistical analyses of the quantitative data were conducted using chi-square tests at 95% level of significance. Chi-square, which is non-parametric test of statistical significance for bivariate tabular analysis, was used to know whether or not two different samples have significant relationship. The qualitative data was analysed thematically [26] using Atlas.ti 6.2 software. Braun and Clarke (2006) suggested thematic analysis as relevant “when investigating an under-researched area, or while working with participants whose views on a particular topic are not known”. The thematic approach was engaged with analytical rigour [27] after which nodes were exported from Atlas.ti software to a word document, read several times to identify the emerging patterns, and finally arrived at the meanings that emerged from the key themes.

3. Results

3.1. Socio-Demographic Characteristics of Respondents

The age distribution analysis indicated that half (50.1%) of the respondents fell between age 60 and 69 years. **Table 1** shows that 5.4% respondents were above 89 years old. Female respondents were a little above average (56.4%) than the male counterpart. Majority (65.4%) of the respondents were Muslims and only 3.3% practiced traditional religion. The marital status analysis indicated that large majority (74.6%) of the respondents had spouses, of which, 32.8% reportedly maintained their only spouses, while 31.8% of the respondents live with spouses re-married to. Distribution of family members living with the respondents revealed that 23.4% respondents had their own children alone living with them, 12.0% respondents had their grandchildren living with them, while 16.0% respondents had none of their family members living with them. Data indicated a minimum of three children each living with 84.3% respondents or a maximum of seven children each living with 1.4% respondents as shown in **Table 1**.

3.2. Socio-Economic and Health Expenditure Status of the Respondents

The socio-economic data of the respondents revealed that about half (51.1%) did not have any formal educational qualification. The residential ownership data showed that two-fifth (41.6%) of the respondents lived in houses built by themselves and 16.6% respondents reportedly lived in the houses owned by their spouse. Meanwhile, 15.5% of the respondents lived in the family house, while one-twelfth (7.9%) respondents inherited the house they lived in. Majority (65.3%) of the respondents were self-employed, while 26.0% respondents were

Table 1. Socio-demographic characteristics of the respondents (N = 1280).

	Variables	Frequency	Percentage
Age distributions	60 - 69	641	50.1
	70 - 79	424	33.1
	80 - 89	146	11.4
	90 and Above	69	5.4
Sex	Female	722	56.4
	Male	558	43.6
Religious affiliations	Islam	837	65.4
	Christianity	412	32.2
	Traditional	31	3.3
Marital status	Married to current spouse only	420	32.8
	Re-married to current spouse	407	31.8
	Widowed	357	27.9
	Divorced/separated	75	5.9
	Unmarried	21	1.6
Current family living with	Children	300	23.4
	Spouse(s) & Children	193	15.1
	Children & Grand children	164	12.8
	Grand children	153	12.0
	Spouse(s)	150	11.7
	Others	115	9.0
	None	205	16.0
Number of children living with	1 - 3	649	84.3
	4 - 6	110	14.3
	Above 6	11	1.4
Marital family of orientation	Polygyny	842	65.8
	Monogamy	438	34.2
Marital family of procreation	Polygyny	716	55.9
	Monogamy	564	44.1
Household headship	Self	934	73.0
	Spouse	258	20.2
	Children	88	6.9
	None alive	1129	88.2
Parental status	Both parents alive	64	5.0
	Only mothers alive	62	4.8
	Only fathers alive	25	2.0
Caregivers around	Family members	1199	93.7
	Non-family members	81	6.3

not working. The average monthly income received by the respondents working as at time of this study indicated that about four-fifth (80.8%) respondents re-

ceived less than thirty thousand naira (N30,000), while only 2.6% of the respondents received sixty thousand naira and above (N60,000) per month. When respondents were asked to indicate other sources of financial supports, the large majority (79.1%) who received money through other sources reportedly got the money; from their grown up children (71.2%), religious associates they maintained (8.1%) and through pension (0.8%) as their source of getting money.

The health expenditure of the respondents was documented. The respondents reportedly foot the expenses on the health of the spouse (36.6%), children (41.8%) and personal medical bill (86.3%). The monthly expenditure on pain-relief drugs costed between five thousand Naira (N5000.00) and slightly above ten thousand Naira (N10,000.00). A large majority (84.8%) of respondents had never known about health insurance Scheme and almost all (98.7%) respondents did not plan to enrol with any of health insurance schemes.

3.3. Yoruba Categorisation of Elderly

The respondents were made to categorise the elderly for easy description of the dimensions of MS pain. In this study, the elderly were categorised into four age groups of; 60 - 69 years, 70 - 79 years, 80 - 89 years and 89+ years as shown in **Figure 1**. The elderly of age 60 - 69 years was described as young elderly (*Agba*) by 27.5% respondents, and 25.2% respondents categorised age 70 - 79 years as old elderly (*Agbalagba*). Also, 24.5% respondents categorised elderly of age 80 - 89 years as older elderly (*Arugbo*), while 22.8% respondents described age 89+ as

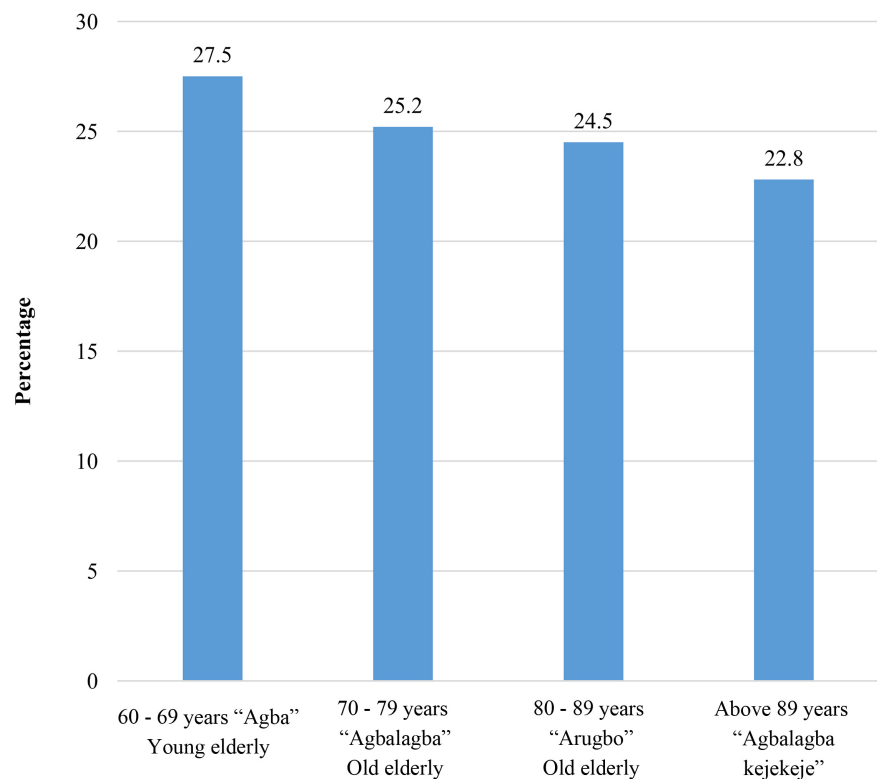


Figure 1. Yoruba social construction of elderly.

oldest elderly (*Agbalagbakejekeje*). Narratives from the participants indicate that MS pain was perceived as parts of the attributes of growing older. Participants described the experiences of MS pain by age categories. Participants also expressed less fear on MS pain since it was perceived as normal experience for the elderly. This was expressed in an interview:

The way individual elderly think about the cause of MS pain differs, most especially, the way *agba* will perceive the cause of MS pain would be different from how *agbalagba* or *arugbo* would look at it. *Arugbo* often think of “going home peacefully” that is peaceful death, so the issue of bodily pain may not be their major concerns because they have lived with it for so long (IDI, Male Elderly, Ago-Are).

3.4. Perceived Causes of Musculoskeletal Pain (MS Pain) Experiences

The respondents’ perception about the causes of MS pain was sourced and presented in **Table 2**. Factors such as the individual’s occupation history, factors attributed to aging process, history of injury/accident, and change in individual’s food intake were the perceived causes. Occupational hazard and related issues were the common factors perceived by most of the respondents whose pain experiences were located in their necks (78.8%), pain in their shoulders (94.1%), and pain in their elbows (96.0%). Old age factors were perceived as the cause of MS pain experience in the wrists/hands (27.9%), while four-fifth (80%) of the respondents who had pain in their upper back/lower neck perceived that it was caused by past work life history. Other perceived causes are shown in **Table 2**. In all, occupational factors were more perceived as the causes of MS pain at the

Table 2. Distribution of respondents on perceived reasons on MS pain locations.

MS Pain locations	Frequency (%)	Perceived Reasons for having MS Pain		
		History of occupation (%)	Due to aging (%)	History of injury/accident (%)
Neck	156 (6.5)	123 (78.8)	33 (21.2)	-
Shoulders	320 (13.3)	301 (94.1)	18 (5.6)	-
Elbow	50 (2.1)	48 (96.0)	2 (4.0)	-
Wrists/hands	68 (2.8)	49 (72.1)	19 (27.9)	-
Upper back	425 (17.6)	340 (80.0)	84 (19.8)	1 (0.2)
Lower back	416 (17.3)	384 (92.3)	32 (7.7)	-
One or both hips/thighs	254 (10.5)	236 (92.9)	10 (3.9)	8 (3.1)
One or both knees	472 (19.6)	353 (74.8)	106 (22.5)	13 (2.8)
One or both ankles/feet	249 (10.3)	202 (81.1)	32 (12.9)	15 (6.0)

various body locations of the respondents. In the same manner, history of occupation, and aging were the major perceived causes of musculoskeletal pain highlighted in the interviews among elderly. One traditional healer corroborates:

You see, when you are young, you can do whatever job you want to do without any physical hindrance. Some of these jobs could even take a lot of your energy away but you would not border because you are still young. Majority of the elderly had engaged themselves in several hard labour work like bricklaying, and farming work with hoes and cutlasses in the past. Believe me sincerely, there is no way tissues, muscles and bones of such elderly would not “demand for it” when the time comes at old age (KII, Traditional healer, Oyo Town).

3.5. Patterns of MS Pain among the Elderly

Pattern of MS pain was established among the elderly. **Table 3** shows that 6.5% respondents identified neck as their pain location, out of which 78.2% respondents reported acute neck pain, while 7.1% had chronic neck pains. Also, among the 13.3% respondents who experienced pain on shoulders, seven often (73.8%) had pain at their right shoulder only, 5.3% had pain at their left shoulder only, while one-fifth (20.9%) respondents experienced pain at both shoulders. Almost nine often (89.1%) respondents experienced acute pain, while one-tenth (10.6%) experienced sub-acute pain. Slightly above average (52.0%) of the respondents

Table 3. Distribution of respondents on patterns of MS pain.

Body location of MS Pain	Frequency (%)	MS Pain Duration			X ²
		Acute (%)	Sub-acute (%)	Chronic (%)	
Neck	156 (6.5)	122 (78.2)	23 (14.7)	11 (7.1)	-
Shoulders	320 (13.3)	285 (89.1)	34 (10.6)	11 (0.3)	0.000
Right shoulder-236 (73.8%)					
Left shoulder-17 (5.3%)					
Both shoulders-67 (20.9%)					
Elbow	50 (2.1)	24 (48.0)	26 (52.0)	-	0.411
Right elbow-26 (52.0%)					
Both elbows-24 (48.0%)					
Wrists/hands	68 (2.8)	41 (60.3)	26 (38.2)	1 (1.5)	
Right wrists/hand-41 (60.3%)					0.010
Both wrists-27 (39.7%)					
Upper back	425 (17.6)	239 (56.2)	122 (28.7)	64 (15.1)	0.000
Lower back	416 (17.3)	257 (61.8)	103 (24.8)	56 (13.5)	0.000
One or both hips/thighs	254 (10.5)	88 (34.6)	146 (57.5)	20 (7.9)	0.004
One or both knees	472 (19.6)	198 (41.9)	235 (49.8)	39 (8.3)	0.004
One or both ankles/feet	249 (10.3)	96 (38.6)	117 (47.0)	36 (14.5)	0.000

who had pain at their elbow experienced it in the right elbow, while 48.0% experienced pain at both elbows. Three of five (60.3%) respondents who had wrists/hands pain experienced it in their right wrists/hands. Overall, 52.0% respondents with elbow pain had sub-acute pain, while 60.3% respondents with wrists/hands pain had acute pain. The combination of upper back pain and lower back pain revealed that one-third (34.9%) of the respondents experienced back pain in general. Back pain has the highest prevalence rate in the purview of MS pain locations among the respondents.

However, this study showed that pain in either one or both knees location ranked highest as reportedly experienced by two-fifth (19.6%) of the respondents. Chronic MS pain was reported for upper back and lower back, while the narratives indicated elderly use of “asapo” for treatment of MS pain of various locations in the body. This was also reported by the health officers, with concerns about abuse of drugs used for pain relief by the elderly:

MS pain among elderly has not often been well recognised or adequately treated in this community. The assessment of pain for the elderly is complicated in this community by series of factors; presence of other chronic conditions, use of multi-drug treatment that can interfere with the pain mechanisms and the presence of multiple causes of pain. Most time, these elderly use different drugs over-the-counter in as much they heard that the drugs are for pain-relief without knowing the side effects of such drugs in their bodies (KII, the most senior health officer, Ilora Health Centre).

3.6. Perceived Causes of Musculoskeletal Pain and Age Cohort

Clearly, **Table 4** showed that the hard work experiences of the elderly at younger age were mostly perceived the cause of MS pain among the respondents. Data also indicate that the more elderly grows older the less they hold on to the perceived factor that caused pain. Other factors attributed to the cause include; “sleeping bed”, “types of food intake”, and “due to past accident experience”. However, MS pain was considered “*aisanawonagbalagba*” (ailment of the elderly people) as indicated in the narratives of interviews.

3.7. Influence of Musculoskeletal Pain Experiences on Elderly Activities

Musculoskeletal pain was reported as having negative effect on the daily activities of the elderly people. The effects were shared as affecting different activities of the elderly, hence, 22.5% of the elderly were unable to move around, 19.5% were disturbed from deep sleep, while 15.9% respondents recalled that their inability to stand well and upright was as a result of MS pain on them. Also, 13.9% of the respondents were unable to worship effectively at their churches or mosques due to the experience of MS pain, 13.8% reported that they were depressed as a result of MS pain experiences, 7.0% complained that the effect of MS pain on them resulted in their inability to eat well, 3.4% reported that MS

Table 4. Association between the perceived causes of MS pain and age cohort (N = 1231).

Perceived causes of MS pain		Age cohort			
		Young elderly (60 - 69 years)	Old Elderly (70 - 79 years)	Older elderly (80 - 89 years)	Oldest elderly (90 years and Above)
Due to experience of hard work at younger age	Freq.	302	191	75	29
	% within age	49.1	46.2	53.6	46.0
	% within cause	50.6	32.0	12.6	4.9
Due to types of bed use to sleep	Freq.	33	21	4	2
	% within age	5.4	5.1	2.9	3.2
	% within cause	55.0	35.0	6.7	3.3
Due to hard work currently doing	Freq.	196	138	37	20
	% within age	31.9	33.4	26.4	31.7
	% within cause	50.1	35.3	9.5	5.1
Type of food intake	Freq.	4	1	3	0
	% within age	0.6	0.2	2.1	0.0
	% within cause	50.0	12.5	37.5	0.0
Due to current age status	Freq.	60	47	18	11
	% within age	9.8	11.4	12.9	17.5
	% within cause	44.1	34.6	13.2	8.1
Parents had such pain	Freq.	8	0	1	1
	% within age	1.3	0.0	0.7	1.6
	% within cause	80.0	0.0	10.0	10.0
Due to past accident	Freq.	12	15	2	0
	% within age	1.9	3.6	1.4	0.0
	% within cause	41.4	51.7	6.9	0.0

$X^2 = 0.038$, Df = 6, p-value = 0.05.

pain led them to experience general body weakness, while 4.0% respondents fell into the category of having headache, feeling cold and having eyesight problem.

3.8. Social Supports to Musculoskeletal Pain

The relevance of social support as determinant of MS pain management is documented. **Table 5** shows the rate of expected informational supports and the actual support rates received from various sources such as from the spouse, children, relatives, friends and community. Other sources include religious sects, social association, government organisation and non-governmental organisations. In all, while the support received from other sources were more than the expected, only the spouse did not provide supports to the expectation as shown in **Table 5**.

3.9. Coping Strategies with Musculoskeletal Pain

Strategies, ranging from massaging, getting drugs from the chemists, use of hot

Table 5. Distribution of informational support on MS pain drug use.

Sources of Informational support		Information on Pain Drug Use			
		Expected		Received	
		Frequency	Percent	Frequency	Percent
Spouse	No	717	56.0	833	65.1
	Yes	563	44.0	447	34.9
Children	No	808	63.1	628	49.1
	Yes	472	36.9	652	50.9
Relatives	No	996	77.8	897	70.1
	Yes	284	22.2	383	29.9
Friends	No	1166	91.1	1118	87.3
	Yes	114	8.9	162	12.7
Community	No	1234	96.4	1148	89.7
	Yes	46	3.6	132	10.3
Religious Sect.	No	1177	92.0	1152	90.0
	Yes	103	8.0	128	10.0
Social Association	No	1220	95.3	1181	92.3
	Yes	60	4.7	99	7.7
Governmental Organizations	No	1248	97.5	1176	91.9
	Yes	32	2.5	104	8.1
Non-Governmental Organizations	No	1232	96.3	1200	93.8
	Yes	48	3.8	80	6.3

water or traditional medicine, were adopted to cope with MS pain. Data indicate that about one-third (32.6%) of the respondents massaged, bathed with warm water, used pain killer and herbs together in coping with MS pain, 14.5% respondents visited chemist stores for complaints and treatment, while 7.4% respondents massaged the affected part. Also 4.6% respondents used hot water and pain killer balm, 3.7% respondents used leftover pain-killer drugs during previous episode, 4.5% respondents used traditional medicine, while 30.5% respondents did not do anything to cope with MS pain.

4. Discussion

Half of the respondents in this study did not have any formal education. This was also noted in the National Population Commission (NPC) data where it was reported that 66.5% of people of age 60 years and above did not receive any formal education in Oyo State [25]. Clearly, the population of the elderly reported in NPC [25] as having no formal education was still higher by 15% than the elderly in this study. The global delineation of elderly age has three categorisation vis-a-vis “young old” (60 - 74 years old), “old old” (75 - 84 years), and “oldest old” (85 years and above) [28] [29]. In this study, the narratives of the participants on the construction of the elderly identified four categorisation into

“*Agba*” (young elderly) 60 - 69 years; “*Agbalagba*” (old elderly) 70 - 79 years; “*Agbalagbakejekeje*” (older elderly) 80 - 89 years, and “*Arugbo*” (oldest elderly) above 89 years old. The period of *Agba*, described as the entry point into elderly category, is estimated to tally with the ideal period of retirement (which is 60-65 years) in Nigeria. This period may coincide with that of retirement age in many countries of the world. Although there are no global agreed standard numerical criteria, the United Nations put 60 years as cut off [28], while chronological age is often associated with age of retirement [28] in many countries. *Agbalagba* period is described as the time when one begins to depreciate in capacity and with less commitment/participation in activities. The biological aging dimension, which according to Hooyman and Kiyak [30], indicates a reduction in bone density and visual acuity, which are normal parts of physiological changes of growing older, is in line with the present findings. *Agbalagbakejekeje* and *Arugbo* categories are period of time when individuals begin to act like “children”, completely dependent on other people around for supports to actualise many tasks. A previous study also observed that psychological aging indicates changes in mental functioning and personality, while social aging refers to changes that occur in person’s roles and relationship with others [30]. In such cases of social aging, a young person of age 40 may function as “old” due to enduring lifetime of poverty, malnutrition and heavy labour, while privileged people may remain free of health challenges that often accompany ageing until they attain the age of 70 years or 80 years [6]. The social definition may depict people from a particular age group referring to a senior in age group as old [31] and change in social role is predominant means of defining old age in cultural analysis.

Occupational history is one of the major factors that cause MS pain not only due to the type of jobs elderly did at early stage of life, but also common to active younger adults. For instance, a study among nurses found that low back pain was a major occupational problem reported by the professional group [32], hence, confirming the experiences of musculoskeletal pain explainable in terms of occupational-specific of the individuals [33].

Back pain was reported by more than half of the participants in this study. Globally, back pain is observed to have caused more disability than any other health condition [34]. Back pain is also one of the common health conditions for which patients in high-income countries seek medical attention [35]. In Italy for instance, 32% of older adults of 65 years and above complained of back pain [36], while back pain was reported by 36 percent of community-dwelling elderly of 70 - 79 years old in the United States [37]. The Global Burden of Disease Study in 2010 ranked low back pain as the condition with the highest number of years lived with disability (YLDs) and sixth in terms of disability-adjusted life years [38].

This present study found association between age cohort of elderly and perceived causes of MS pain ($\chi^2 = 0.038$). Findings in this study indicate that the age cohort of respondents affects the ways elderly perceived the cause of MS pain.

Also, almost half of young elderly and 46.2% of old elderly perceived the hard work experience at younger age as the cause of MS pain. Whereas, body ache/joint pain was perceived as signs/symptoms of malaria by mothers of children under age five years [39].

The effect of MS pain could cause social isolation, weak spiritual life, sense of despair, regret, loss of the meaning of life and a feeling of being forsaken by both man and even God, as observed by Andruszkiewicz, Basinska, *et al.*, [40]. Findings in this study also showed that the experiences of MS pain on aging process significantly impairs functioning of individual elderly in various ways. For instance, this study shows that MS pain can impair cognitive functioning, lead to mood changes (such as increase anxiety and depression), deepens social withdrawal [41], disturbs sleep and increases disability and risk of falling down [42], which could in turn result in lower quality of life [43]. Whereas MS pain is not a natural component of the aging process for elderly [44], some concerns suggest that pain threshold in older people is higher and therefore older people can bear more extreme stimuli at which pain begins to be felt [45]. Getting away from this, chronic pain especially, is regarded as a stressful factor not only for elderly but also for individual sufferers of pain and hence destroys their psychosocial balance for coping, as observed by Andruszkiewicz *et al.*, [40].

5. Limitation of the Study

This is a community survey and it has relied mainly on verbal reporting of the elderly persons who reportedly experienced musculoskeletal pain. The age of the respondents was also known through self-reporting. However, questions that revolve around pain experience were the main concern of the study and were posed to the participants. Participants indicated the different locations in the body with MS pain experience. Future study may trace participants through a review of hospital register. Such register would contain details including age of the participants.

6. Conclusion

This study has documented the social dimensions of musculoskeletal pain and its influence on the aging process in its dimensional form among the elderly of Oyo State. At the age, large majority of the elderly received less than thirty thousand naira (<\$100) a month, while they incurred more expenditure on health care without having enrolment with health insurance scheme to take care of their health expenditure. Signs of aging process and previous occupational experience were perceived as the cause of MS pain. The elderly reportedly experienced MS pain in four different body locations including the knees, upper back, lower back and shoulders with resulting effects such as inability to move around, inability to have deep sleep and depression propelled by the experience of MS pain. These findings show some trends and provide a basis for policy relevance recommendation to design special health care and social services

schemes for the elderly in Nigeria. Partnership between government and viable private health providers at various communities in Nigeria would enhance easy access to health care services by the elderly.

Acknowledgements

All the efforts of the participants in giving their time to participate in this study are highly appreciated. The effort of field staff in data collection is also appreciated. The main study received a PhD Thesis Grant from LAPO Institute.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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