

Prevailing Sensory Perception Problems of the Aged Patients in University of Ilorin Teaching Hospital, Nigeria.

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ABSTRACT

As aging concerned, the way one's senses (hearing, vision, taste, smell, touch) would give information about the world's changes. All 5 senses affected by ageing but hearing and vision are most affected. Therefore, this research addressed prevailing sensory perception problems among the aged patients in University of Ilorin Teaching Hospital in relation to gender, age, education and occupational status. This study was to examine the prevalence of auditory and visual problems in relation to age, gender and occupational status. Descriptive by survey method was used. The study population comprised all the aged patients admitted into University of Ilorin Teaching hospital who were between age 60-90 years. Thirty of such patients were selected as samples. Data collected and analysed using ANOVA's statistical analysis at 0.05 alpha level of significance. The findings revealed that, aged patients were not significantly suffer for auditory defect based on gender, but significantly suffer from auditory defect based on age and occupation status. It was recommended that a Geriatric ward should be provided, government should also make safety facilities compulsory for private and public firms and Health information services should be put in place for aged people and retirees should be giving orientation on how to utilize their entitlement before they retire, these enable them spend their money to live a better life at their old age.

Keywords: *Aged patients, sensory perception, prevalence.*

Introduction

Ancient philosophers called the human senses “the windows of the soul,” and Aristotle described at least five senses — sight, hearing, smell, taste, and touch. Aristotle's influence had been so enduring that many people still speak of the five senses as if there were no others. Yet the modern sensory catalogue now includes receptors in the muscles, tendons, and joints, which give rise to the kinaesthetic sense (that is, the sense of motion), and receptors in the vestibular organs in the inner ear, which give rise to the sense of balance (Encyclopaedia Britannica, 2014). There was no universally accepted age that considered old among or within societies. Often discrepancies existed as to what age a society may considered old and what members in that society of that age and older may considered old. Moreover, biologists were not in agreement about the existence of an inherent biological cause by aging. However, in most contemporary Western countries, 60 or 65 was the age of eligibility for retirement and joining the old-age social programs, although even there were many countries and societies regard old age as occurring anywhere from the mid - 40s to the 70s (Encyclopaedia Britannica, 2014).

As one's age growth, the way one's senses (hearing, vision, taste, smell, touch) would give information about the world's changes. With ageing, one's might reduce or changed in sensations. These changes could relate to decreased of blood flow to the nerve endings or to the spinal cord or brain as well. The spinal cord transmit nerve signals and the brain interprets the signals. All of the eye structures changed with ageing (Medical Encyclopaedia, 2012). Elder people, no matter the race or socio-cultural background may think and move slowly. Some of them may have bad emotion because of their attachment to the past or in-ability to accept the inevitable as they growth. These included: aging, low level of health status and death (mortality rate arising up). Some of these old people were tied to their personal traditions and growing conservation. They hate innovations and were not well disposed to favouring new ideas. Not only can they not move forward, they often move backwards. Some of them enter a second childhood, often caught in increasing egocentricity and demanding more from their environment than they were willing to give to it away (Chalmers, 1980).

Sometimes, some of elder people become more un-like themselves, caricatures of their life long personalities. They become irritable and cantankerous, while some of these elderly people live in their past and were behind time. They often aimless and wandering off in their mind. They tend to have lost and could not replace their friends, spouse, jobs, status, power, influence and income. Thus, coupled with other environmental factors that often make even older people's feel and look unhealthy as appearance concerned (Atoyebi, 1982). James (1990) stated that common problems which arise due to old age are numerous. Among these problems are: Poverty due to inability to work to earn reasonable income, poor nutritional status, lack of energy to cook, poor dentition, lack of appetite, chronic illness, loneliness due to the fact that their female children were married and males children have built new houses elsewhere therefore leaving their old parents homeless feel and cause them mental confusion due to poor blood supply to the brain.

Bangbowu (1995) pointed out that the initial cause of a disease to the aged may be within the individual. The disease may cause by some external's agents to the organism. The external agents may be a living organism capable of multiplying and infecting another organism. In this case, the disease was said to be communicable. James (1990) stated in today's health guide, reported that life expectancy information and a personal observation revealed that among elderly population, a greater number were females. Levine (2014) gave 5 reasons why women could live longer than men. These included: females were tougher in utero, women were less likely to be daredevils, women succumbed to heart disease later than men, women had stronger social networks and women took better care of their health. Zeilinger (2013) pointed out that men often engaged in risky behaviours that endanger their health rather than women. These behaviours included smoking, alcohol consumption, hard drugs and risky social lives.

Concept of Ageing

Ageing was defined by Encyclopaedia Britannica (2014) as a progressive physiological change in an organism that lead to senescence, or a declined of biological functions and of the organism's ability to adapt to metabolic stress. In addition to theories of aging based on molecules and cells, there also exists a "psycho-sociological" theory of aging. As people grow older, their behaviour changed, their social interactions changed, and the activities in which they engaged also changed. The psycho-sociological theory of aging could be divided roughly into four components in theories: disengagement, activity, life-course, and continuity theories. Disengagement theory based on hampered relationships between a person and other members of society. Activity theory emphasized the importance of ongoing social activity and suggested that a person's self-concept (self-perspective) was related to the roles held by that person. Life-course theory was based on the developmental stages proposed by German-born American psychoanalyst Erik H. Erikson. According to Erikson's stages, maturity was a process that continues into old age, and in each stage the individual encounters new psychosocial demands. Continuity theory states that older adults tried to preserve and maintain

internal and external characteristics (e.g., values, personality, preferences, and behaviour patterns) throughout life, despite changes in their health or life circumstances. It was important to note at this juncture that there was a term known as successful ageing. Although it was difficult to define successful ageing as the term was relative; the definition was merely a reflection of a particular person's values, personality, preferences and behaviour patterns. "Successful ageing had two important aspects. One was life satisfaction on the part of the older people themselves, this depends mainly on how contented they were with their lives and if their positive self-regarding attitudes as an individual's belief that he or she was growing old gracefully may not be shared by their friends or relatives (Birren, 1984). The second aspect of successful ageing had to do with social roles or interpersonal obligations and responsibilities.

In other words, Birren (1984) believed that successful ageing had an inner or psychological criterion on the outer, more social one. These two aspects of the personality somewhat consistent, but a one-on-one relationship between the social aspects of ageing did not necessarily exist.

Encyclopaedia Britannica (2014) defined disease as a harmful deviation from the normal structural or functional state of an organism. A disease organism commonly exhibits signs or symptoms indicative of its abnormal state. Thus, the normal condition of an organism must be understood in order to recognize the hallmarks of disease. Nevertheless, a sharp demarcation between disease and health is not always apparent. The initial cause of health problems to the aged may be due to what he/she did in the early years or what he did not do. Some health problems are innate or primary i.e. within the aged himself while some may be caused by external agents. The external agent may be a living organism capable of multiplying within the host (Bradley,1987). It was glaring that disease affect old people more rapidly than the young people. The magnitude of disease affecting elderly people and the youths was compared by Bauer (1989) when the finding classified thus:"25.9 per 1,000 persons aged 65 in United States as blind, contrast to 1.3 persons were classified as functionally deaf compared with 5.0 person 1,000 in the age range of 25-34 years".

The above data showed that elderly people were prone to detect such as blindness and deafness than the younger people, so the scene of deduce that certain sense organ defects were common in elderly people than in youth. According to Harris (1980) among the most prevalent were auditory problems in elderly people. Furthermore, Bradley (1987) rightly stated that the greater effect of visual deprivation may be inferred from the observation that older individuals were thirteen times as likely to wear eye glasses as young person but only twice as likely to own hearing aids. Sensory Perception Problems: The sense organs of man include: the eye for vision, the ear for hearing, the skin for feeling, the nose for smelling and the tongue for tasting. These sense organs have various old age diseases which affect them. The defects include the following:

Visual Defects: Aging also brings about a reduction in the ability to change the focus of the eye for viewing near and far objects (presbyopia), so that distant objects can ordinarily be seen more clearly than those close at hand. This change in vision is related to a gradual increase in rigidity of the lens of the eye that takes place primarily between the ages of 10 and 55 years. After age 55 there is little further change. Many people in their 50s adopt bifocal glasses to compensate for this physiological change.

Hearing Defects: Hearing does not change much with age for tones of frequencies usually encountered in daily life. Above the age of 50, however, there is a gradual reduction in the ability to perceive tones at higher frequencies. Few persons over the age of 65 could hear tones with a frequency of 10,000 cycles per second. This loss of perception of high frequencies interferes with identifying individuals by their voices and with understanding conversation in a group but does not ordinarily represent a serious limitation to the individual in daily life.

Smelling Defects: The effect of aging on the sense of smell has not been precisely determined because this sense is extremely difficult to assess quantitatively; in addition, smoking and exposure to occupational odours and noxious substances in the air influence sensitivity to smells. **Tasting Defects:**

there is reduced sensitivity to taste in the aged which is associated with atrophy and loss of taste buds from the tongue in the elderly. Tactile or Touch Defects: This defect seems to be the most serious of the diseases affecting the sense organs of elderly people. The skin which is the sense organ for touch tends to be drier, rougher, and more lined with hair turning grey in elderly people, this deteriorating characteristics make the elderly people more prone to tactile disease such as paralysis pruritus, ientigo malgana and so on (O' Neil, 1984).

Statement of the Problem

Old age was seemingly supposed to be a period when the aged should sit back and enjoy the fruits of their past labour, but for a reasonable percentage of them this was not so. Many of these elderly people had become victims of diseases that affect their various sense organs. This had made it difficult for them to function effectively. Many of these elderly people did not enjoy this period of their lives due to the effect of one disease or another. In fact, it was common to find many old people being paralysed partially or completely blind or having auditory problems (James, 1990).

This research was to identify the common sensory perception problems among the aged patients seen at the University of Ilorin Teaching Hospital. The sensory functions such as visual, auditory, tactile, gustatory and olfactory were focused. This work also found out the rate of incidence at University of Ilorin Teaching Hospital over a given period of time.

Research hypotheses

- (1) Aged patients in University of Ilorin Teaching Hospital were not suffer significantly from auditory problem based on gender.
- (2) Aged patients in University of Ilorin Teaching Hospital were not suffer significantly from auditory problem based on age
- (3) Aged patients in University of Ilorin were not suffer significantly from auditory defects based on their occupation.
- (4) Aged patients in University of Ilorin Teaching Hospital were not suffer significantly from visual problem based on gender.
- (5) Aged patients in University of Ilorin Teaching Hospital were not suffer significantly from visual problem based on age.
- (6) Aged patients in University of Ilorin were not suffer significantly from visual defects based on their occupation.

Methodology

The research design adopted for this study was a descriptive research of survey method. The population studied included all the patients between ages 60-90 years and above, patients of University of Ilorin Teaching Hospital. These patients cut across both male and female adult medical and surgical wards. Every patient in this category at the time of study formed the population of study. Purposive and random sampling techniques were used to select a total number of 50 patients, 25 males and 25 females out of 67 such patients found in the wards at the time of administration of the questionnaire. To select the subjects, all the lists of the aged patients on admission at the period were collected. These names were made into ballot for adequate representation. Twenty- five ballots were eventually picked by a group of school children from each of the ballot boxes for both males and female. The researcher used questionnaire designed and validated by some experts in related field. The questionnaire was distributed to the aged patients in the hospital. The illiterates among the patients were assisted by the researcher and two research assistants. The validity and the reliability of the instrument were ascertained using test re-test method. Twenty questionnaire forms were first

administered to 20 randomly sampled Health workers in Ola-Olu Hospital. A final administration of questionnaire was carried out two weeks after the first administration using the same set of respondents. The two responses were compared using the Spearman Brown Pearson of Correlation. The reliability coefficient of the test was 0.75. This was considered as being good enough for this study. The statistical technique of mean percentages and frequencies were used in analyzing the responses given. Chi-square statistic was used in testing the main hypotheses at 0.05 significant level, while Analysis of Variances and *t*-test were used to test the sub hypotheses.

Results

Hypothesis one: Aged patients in university of Ilorin Teaching Hospital will not suffer significantly from auditory problems based on gender.

Table 1: Auditory problems based on gender

Variable	X	SD	<i>t</i> -test	Decision
Male	5.95	3.11		
Female	6.06	3.14	1.46	Not rejected

$p \leq 0.05$, $df=48$, crt. Value= 1.68

Based on the data presented in the table above, *t*-test calculated was 1.46 with critical value of 1.68. The null hypothesis is therefore not rejected which means that Aged Patients in University of Ilorin Teaching Hospital were not significantly suffer from auditory problems based on the male or female. This implied that genders were no effect on auditory problems.

Hypothesis two: The aged patients in University of Ilorin Teaching Hospital were not significantly suffer from auditory problems based on age.

Table 2: Auditory problems based on age

Variable	X	SD	T-Test	Decision
≤ 70 years	4.32	2.81		
≥ 71 years	7.68	3.92	1.77	Rejected

The table showed a standard deviation of 2.81 to 3.92 which gives the *t*-test of 1.77. This makes the critical value of 1.68 greater at 0.05. The hypothesis was therefore rejected. This means that the aged patients in University of Ilorin Teaching Hospital were significantly suffer from auditory problems based on age.

Hypothesis three: Aged patients in University of Ilorin Teaching Hospital were not significantly suffer from auditory problems based on occupational status.

Table 3: Mean differences auditory problems based on occupational status

S/NO	OCCUPATION	A	B	C	X
1	Civil servants	2.1	1.9	2.2	2.07
2	Factory workers	3.7	2.6	4.8	3.70
3	Farmers	2.2	2.3	3.1	2.53
4	Traders	2.4	2.5	2.9	2.60
5	Others	2.0	1.2	2.3	1.17

Table 4: ANOVA result of Ho4; auditory perception problems based on occupational status.

SOURCE	SS1	DF	MS	F-RATIO
Between	7297.11	4	18.23	
Within	921.16	10	92.12	19.79
Total	-	14	-	

$P \leq 0.005, 0.05f4, 10=5.96$

Table 5: Duncan multiple comparison test auditory problem based on occupation

RANGE	OCCUPATIONAL STATUS	MEANS (x5)
A	Others	1.17
A	civil servants	2.07
A	Farmers	2.53
A	Traders	2.60
A	Factory workers	3.70

Based on the frequency distribution table 4, that $0.05f4, 10=5.96$. The calculated f ratio value is 19.79. Therefore, the hypothesis was rejected since 19.76 was greater than 5.96. That means aged patients in University of Ilorin Teaching Hospital were significantly suffer from auditory problem based on occupational status. Table 5 re-affirms this that Duncan Multiple Comparison Test shows that 3.70% were factory workers where machines which produce a lot of noise being used whereas the lowest percentage was 1.17% who engage in other jobs. This result showed that there ws a great disparity in the category of those working in a place where there was noise pollution than those who engaged in menial jobs.

Hypothesis 4: Aged patients in University of Ilorin Teaching Hospital were not significantly suffer from visual problems based on gender

Table 6: t-test result on Visual problems based on gender

VARIABLE	X	SD	t-TEST	DECISION
Male	5.6	2.12		
Female	4.4	1.98	1.56	Not rejected

$p \geq 0.05, df=48, \text{crit. Value}=1.68$

Observing the table 6 above, the critical value of 1.68 was greater than 0.05, hypothesis 4 is therefore was not rejected i.e. aged patients in University of Ilorin Teaching Hospital were not significantly suffer from visual problems based on gender.

Hypothesis 5: Aged patients in University of Ilorin Teaching Hospital were not significantly suffer from visual problem based on age.

Table 7: t-test result on Visual problems based on age.

VARIABLE	X	SD	t-TEST	DECISION
≤ 60 years	8.6	3.39		
≥ 70 years	1.4	0.44	3.16	Rejected

$P \geq 0.05$, $df = 48$, crt. Value=1.68

Based on the result of the t-test, which was 3.16 making the critical value to be 1.68 at df distribution of 48, the hypothesis was therefore rejected, i.e. aged patients in University of Ilorin Teaching Hospital were significantly suffer from visual defects based on age.

Hypothesis 6: Aged patients in University of Ilorin Teaching Hospital were not significantly suffer from visual problems based on the nature of their jobs.

Table 8: ANOVA result on aged patients and suffering from visual problems based on the nature of their jobs

SOURCE	SS	Df	MS	F-RATIO
Between	4347.18	4	1.086.80	3.24
Within	3352.22	10	335.22	
Total	7699.4	14		

$p \geq 0.05$, 0.05 f4, 10=5.96

Based on the ANOVA result which gave f distribution at 0.05 f4, 10=5.96, since ratio at 3.24 is less than 5.96, the Hypothesis was therefore not rejected.

Discussion of Findings

Aged patients in University of Ilorin Teaching Hospital were not significantly suffer auditory problem based on gender, this result collaborated with Howarth and Shone (2006), which said, hearing impairment was a common problem among the aged and that degree of impairment and its prevalence increases with age, but this was at variance with Anderson, (2003) which stated that the intensity of deafness in men changes from 3.40% at 40-60years to 9.10% at 70-90 years and in women changed from 2.8% at 40-60 years to 8.3% at 70-90 years.

Aged patients in University of Ilorin Teaching Hospital were significantly suffer from auditory problems based on age: This finding confirmed what Nina and Anderson (2013) said about hearing loss and age. The finding said the effects of aging on peripheral hearing function were well known and age related hearing loss was common among those over 60 years.

Aged patients in University of Ilorin Teaching Hospital were significantly suffer from auditory problems based on occupation. This confirmed what Anderson (2003) stated that the intensity of deafness in men changes from 3-40% at 40-60 years to 9.10% at 70-90 years and in women changes from 2.8% at 40-60 years to 8.3% at 70-90 years. With this statement Anderson believed that deafness increases with age and that elderly men were more prone to hearing defects that elderly women. This may be due to the fact that most women did not generally engage in noisy types of work, they preferred the quiet office or classroom's works.

The finding from tested hypothesis four revealed that, aged patients attending University of Ilorin Teaching Hospital (UIITH) were not significantly suffer from visual problem based on gender. Hypothesis five revealed that aged patients in UIITH were significantly suffer from visual problem based on age. This result collaborated with that Butter (2003) which said that, at age 50, few people

could see well without glasses. Butter (2003), said ageing causes a decline in the eye to adjust rapidly to variations in the light. Hypothesis six on the other hand was accepted because aged patients in UITH were not suffer visual problem based on the nature of their job, this means that all categories of workers were averagely suffering from visual problem once old age sets in, nature of job withstanding.

Conclusions and Recommendations

Looking closely at the analysis of data in the study, the researchers concluded that all aged patients attending University of Ilorin Teaching Hospital were significantly suffering from sensory perception problems most especially auditory and visual defects, based on their age, and occupational status but not on the basis of gender.

It was therefore recommended that:

- i) Free or subsidized hearing aids and reading glasses should be made available by the government at various strategic Health centers for aged people.
- ii) Treatments for aged patients should be highly subsidized because some of them depend on their pension allowances which may not be enough for adequate health care.
- iii) Seminars and free medical check –up should be organized on quarterly bases for the aged in each Local Government headquarters.
- iv) The public and private entrepreneurs should be mandated to provide appropriate safety apparels e.g ear guards and eye goggles at factories.
- v) Participating in recreational sport should be encouraged among old people. This will strengthen their sense organs thereby minimizing the effects of certain diseases.
- vi) Geriatric wards should be built for aged patients in the teaching hospitals and various health center.

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