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Common Preventable Health and Social Problems Encountered by Elderly in Shinyanga Region in the Northern Part of Tanzania

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Abstract

Background: In Tanzania elders are respected as repositories of inherited wisdom, experienced and principal decision makers in the community. However, evidence shows that such repositories are no longer considered important in most societies. As a result elders are neglected with some mistreatment in terms of provision of health and social services for instance; at times they get denied and ignored of their obvious rights, ignoring their retirement benefits and the rights onto free social services as per the Tanzania National Ageing Policy of 2003. Elders are therefore faced with physical, psychological and geriatric social suffering. It is on this basis that this study tries to explore the common preventable health and social problems encountered by elderly in Shinyanga Region in northern part of Tanzania. Methods: Across sectional community based study of 465 subjects randomly selected was done in three wards of Kahama District. The district was selected randomly out of 8 districts of Shinyanga Region, structured questionnaires with both closed and opened endower used; the information was collected from house to house and other information collected from health facilities within the wards as every ward had one public health facility; subjects (respondents) were obtained using purposive sampling technique aiming at elderly with 60 years of age and above. Results: Kahama district has a population of approximately 36,014 of which 1500 (4%) are in the elderly age group of 60 years and above. The study population was 465 which is 30% (465/1500) of the geriatric population of Kahama. Among this group 5% were female while 41% were male and 53% (248/465) were married. 64% (297/465) were taking care

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of themselves, 32% (150/465) cared by relatives and 4% (18/465) cared by the community. Among the respondents, 40% (185/465) were affected by HIV/AIDs in one way or another either living with orphans whose parents died of HIV/AIDS or asking care of the infected patients within the family. It was also found that 73% of the geriatrics were not exempted from medical treatment fees so they had to pay for their medical care. However, only 32% were aware of getting free treatment and 61% of the study populations were not satisfied with the medical care provided at the public health facilities. The common diseases affecting this age group are: Eye problem 59% (273/465); Arthritis 52% (241/465); Dental problems 27% (124/465); Hypertension 23% (107/465); Backache 22% (105/465); Malaria 28% (132/465); Hearing problems 26% (121/645); Urinary tract Infection 35% (165/465); Depression 8% (36/465). Dementia was also a problem though we had no tools to confirm the diagnosis; some of the geriatrics had more than two diseases. Conclusion: The majority of the elderly age group in Kahama District are not aware of their rights that they deserve free treatment according to Tanzania policy, furthermore for assessment and screening of health problems. A majority of the elderly die prematurely due to preventable diseases and more than half of the diseases affecting geriatrics are preventable.

Keywords

Geriatric, Social Problems, Health Services, Preventable Diseases, Tanzania

1. Introduction

Geriatric refers to the elderly age of 60 years and above as agreed by United Nation (UN) [1]. It is a physical process of ageing and related with change in social factors. Actually, it is unavoidable process of decay of human body; however medicine and nutrition have shown what was unavoidable by that time; today it is avoidable or the process can be delayed [2]. Rapid rate of ageing in now common in many countries especially the developed countries for example in Britain for the year 1985 the elderly population was 5%; today it is 25% and most of the developed countries have experienced the same; such demographic changes were described by Peterson in 1940 [3].

Such demographic changes required additional social service from the family, relatives, community/society and the government. Previously in many parts of the world especially developing countries elderly were considered as resource of inherited wisdom experience also considered as principal decision maker; currently they are not considered as people with wisdom but they are viewed as people with outdated knowledge; in other words they have undergone crystallization of knowledge [4]. In addition to that elderly people are faced with social problems due to the fact that they don't have enough energy to stand on their own. Instead, they depend on others, such as relatives and community; at times they live alone helplessly. This make them depressed, oppressed and disappointed. In fact, sometime they experience elderly abuse which is associated with high morbidly and mortality; some die prematurely and for those who live long, their life is unhealthy life and not productive [5].

WHO has come up with new indicators which focus on disability free life expectancy (DFLE) or active life expectancy (ALE). Thus with increase in life expectancy of elderly there is also reduction of disability free life expectancy (DFLE or ALE) [6]. Health care provision for elderly is different in developing countries as compared to developed countries; in developing countries health care depends more on their relatives or traditional family care.

In Tanzania at the age of 60 it is considered as government retiring age. This age group has a lot of social and health challenges; due to their status of age, bad physiological changes, thus the function of their body system has deteriorated; hence they become highly susceptible to various diseases, change of behavior and their capacity to work deteriorated [7]. Therefore, ageing in Tanzania has created adjustment pressure to improve support and care of this neglected group so as to increase active life expectancy. There are few non-governmental organizations such as HELP AGE which provides a little support e.g. clothing, treatment and food. This support is not enough; what is needed is more than what we think [8].

The Tanzania government introduced cost sharing in health sector which is the user fee for the provision of health services to the people by an exemption of children and elderly group [9]. The implementation of this policy has met a lot of limitations such as lack of drugs at the public health facilities so the health facilities have become centers for giving only prescriptions, for the drugs they have to buy from the drug shops. As a result, many elderly people when they are sick look for alternative means of getting treatment and support such as self-medication or going for traditional healers [10]. In fact many elderly die prematurely because some can't afford to pay for drugs.

In Tanzania health improvement has focused more on acute than chronic disease, morbidity and disability than on mortality [11]. Therefore, the aim of this study was to find out the exact proportion of the elderly of 60 years and above, because what is known about the prevalence is through extrapolation. This study has gone further to determine the common health and social problems affecting this age group and see whether they can be prevented and at what stage of prevention such as at primary, secondary or tertiary stage. This study therefore, examined the common preventable health and social problems encountered by elderly in Shinyanga northern part of Tanzania. The study also documented on the demographic distribution pattern of elderly by age, sex, marital status and level of education.

2. Methods

2.1. Study Design and Study Settings

We conducted a cross sectional community based study involving, the study used random sampling method of 465 households selected from three wards of Kahama District namely Kagongwa, Isaka and Kahama. All households with elderly subject of 60 years or above were invited to participate in the study using convenience sampling. For households with more than one subject, all of them were considered as separate subject. The study used structured questionnaire with both closed and open ended, the data were collected from house to house. Secondary data were also collected from the health facilities within the respective wards to triangulate information regarding health care services in the district. Every ward had at least one public health facility. From the public health facilities, we were able to collect information regarding health facility based prevalence and records of elderly patients, diagnosis and distribution pattern of preventable diseases.

Shinyanga region became an interest of this study due to its history of elderly abuse and mistreatment; it is the leading region with high rate of elderly killing in Tanzania, elderly of 60 years of age and above are incriminated or associated with witchcraft, for this reason it was decided to explore the health and social problems they encounter in their elderly age. This study did not include elders who had lived in the study area for not less than one year as we thought would have not experienced enough regarding the health care delivery in the area and to avoid contamination of information due to experience from other areas.

Data collected from the three wards were analyzed using SPSS Program version 16. Categorical variables were compiled and summarized in ratios, percentages, proportions, means, standard deviation and associations were determined by using odds ratio (OR) and the confidence interval used was 95%, significance value was considered when p value was less than 0.05.

2.2. Ethical Considerations

Ethical approval was obtained from Catholic University of Health and Allied Sciences and Bugando Medical Centre joint Research Ethical Committee. Permission to conduct research in Kahama District in Shinyanga Region was obtained from the District Council Health Management Team. Participation in this study was voluntary, and participants were free to leave and/or withdrawal their consent whenever they felt so without impacting the health services at the specific health facility. Participants had to complete a written consent form prior to their participation. Elderly who had health problems during the community household surveys, were referred to the district hospital.

3. Results

3.1. Socio-Demographic Characteristics and Common Diseases of the Respondents

Table 1 presents some of the socio-economic characteristics of the participants. Most of the elders (50%) were

Table 1. Socio-demographic variable per wards.

Category	Options	Kahama	Isaka	Kagongwa	Total	%	Mean	SD
Age group	60 - 65	96	79	58	233	50	78	19.0
	66 - 71	27	21	15	63	14	21	6.0
	>72	76	57	36	169	36	56	20.0
Sex	Female	85	93	100	278	60	93	7.5
	Male	55	65	67	187	40	62	6.4
Education level	Primary	40	49	67	156	34	52	13.7
	Colleges	13	16	19	48	10	16	3.0
	Secondary	6	5	4	15	3	5	1.0
	Non formal	81	88	77	248	53	82	5.6
Marital status	Married	71	91	86	248	53	83	42.2
	Divorced	22	16	25	63	14	21	4.6
	Widow/ed	47	48	56	151	32	50	4.9
	Unmarried	-	3	-	3	1	1	1.7
Occupation	Peasant	86	105	119	310	67	103	16.6
	Business	10	18	6	34	7	11	6.1
	Retired/employee	3	2	2	7	2	2	0.58
	Other	41	33	40	114	24	38	4.4
No of meals per day	Once	7	12	42	61	13	20	18.9
	Twice	77	87	65	229	49	76	11.0
	Thrice	56	59	60	175	38	58	2.1
Care taker	Relative	57	49	44	150	32	50	6.6
	Community	5	12	1	18	4	6	5.6
	Him/Herself	78	97	122	297	64	99	22.1
Receive support	Yes	69	61	65	195	42	65	4.0
	No	71	97	102	270	58	90	16.6
How they feel	Good	89	91	68	148	53	83	12.7
	Normal	37	31	36	104	22	35	3.2
	Bad	14	36	63	113	24	38	24.5
Exempted for treatment	Exempted	22	29	22	73	16	24	40.0
	Not exempted	118	129	145	392	84	131	13.6
Aware of free treatment	Yes	38	42	70	150	32	50	17.4
	No	102	116	97	315	68	105	9.9
Cost-of treatment	Free service	17	23	17	57	12	19	3.5
	Cost sharing	103	90	80	273	59	91	11.5
	Health insurance	20	45	70	135	29	45	25.0
Walking distance in hrs	<1 hour	102	55	82	239	51	80	23.6
	1 - 2 hrs	4	54	77	135	29	45	37.3

aged between 60 and 65 years. Majority being women (n = 278, 60%). Of interest, most of the elders in Kahama did not complete primary formal education (n = 248, 53%) with few who had secondary education and above (n = 63, 13%). Regarding their last occupation history, majority reported being peasants (n = 310, 67%). Even, though 32% (n = 150), reported to be living and taken care of by relatives, majority (n = 297, 64%) reported of living and taking care of themselves. Other health related socio-economic factors are presented in **Table 1**.

Table 2 summarizes the distribution of cases per common diseases in selected wards of Kahama district, 54% of the diseases are preventable while 46% are non-preventable and the leading cause of morbidity in elderly age group is eye problems followed by arthritis.

3.2. Quality of Health Care Services and HIV/AIDS Burden

Majority (n = 204, 44%) of the respondents, indicated that, the quality of health services was fair while 2% (n = 11) responded that the service was excellent and 17% (n = 79) said it was poor and/or unsatisfactory. **Table 3** summarizes respondents perceived health care quality. **Table 4** presents the reported burden of HIV/AIDS on

Table 2. Pattern of common diseases among the geriatric group.

Diseases	Kahama	Isaka	Kagongwa	Total	%	Rank	Preventable	Non preventable
Arthritis	63	87	91	241	15	2	-	1
Hypertension	31	46	30	107	7	5	1	-
Eye problems	69	112	92	273	17	1	1	-
Hearing problems	32	54	35	121	8	4	1	-
Skin diseases	21	27	30	78	5	7	-	1
UTI	42	51	74	167	11	3	-	1
Dental	38	35	51	124	8	4	1	-
Backache	25	31	49	105	7	5	-	1
Depression	7	11	18	36	2	10	1	-
Malaria	24	41	67	132	8	4	1	-
RTI	23	19	31	73	4	8	1	-
Prostate	32	27	33	92	6	6	-	1
Others	17	13	11	41	3	9	-	1
Total	**424**	**554**	**612**	**1590**	**100**		**7**	**6**

Table 3. Response of elderly on quality of health services.

Quality of service	Kahama	Isaka	Kagongwa	Total	%
Excellent	1	1	9	11	2
Good	50	66	55	171	37
Fair	69	52	83	204	44
Poor (unsatisfactory)	20	39	20	79	17
Total	140	158	167	465	

Table 4. Effect of HIV/AIDS on elderly.

EFFECT	Kahama	Isaka	Kagonwa	Total	%
Care of orphan	30	16	38	84	45
Death of children	29	20	31	80	43
Victim	1	0	2	3	2
Others	6	12	0	18	10
Total	66	48	71	185	

the elderly group, 45% (n = 84) of the elderly were taking care of orphans of whom their parents died of HIV/AID, also 43% (n = 80) experienced death of their children due to HIV/AIDS and only 2% (n = 3) of the elderly were the victim of HIV/AIDS.

3.3. Aging and Social Activities

Alcoholism and smoking was relatively similar (23% and 25% respectively) in magnitude among the respon-

dents with some doing both. Majority (n = 327, 38%) of the respondents reported to be sexually inactive, while 25% had stopped smoking and 23% had stopped taking alcohol because they can't afford. **Table 5**, presents the patterns of the socio-activities among the elderly group participated in this study.

4. Discussion

The study population of elderly age group was 465, of which 59% are women and 41% are male this could be due to difference in life expectancy thus female live longer by 5 years than male or could be due to pattern of population structure thus in Tanzania women are more than male, and it has been observed that women can resist tress than men and hence men die earlier than men [12].

The age group of 60 to 65 years are 50% they dominate other groups followed by the group of 72 years and above which are 36% this indicates that there are many elder at the beginning of elder age (60 years) and at the age of 66 to 71 years the population drop by 21% later at the age of 75 years and above the population rises, the reason for the population to drop at the age of 66 - 71 years this could be due to failure to compromise with geriatric pattern of life as many people retire at the age of 60 years and after 5 years they die because they fail to compromise with pattern of life, and hence at the age of 72 years and above they become used to geriatric life [9] [11].

In regards to marital status 53% of the study population are married, 32% widow/ed and 14% divorced, these findings are seminar to a study which was done by Thukur *et al.*, in India where 51.1% of the elderly subjects were married, the reason could be that married population of elders live longer than those who are not married [13].

Among the study population of 465 elders 53% had no formal education while 34% had primary school education. This is due to the nature of life and occupation as majority 67% are peasants so that they keep on moving looking for land and green pasture for their cattle so they had limited time to register for school education [14]. Regarding meals 49% eat twice per day, and 38% eat thrice per day and 13% eat once per day, at this age the elders are supposed to take adequate balance food because the function of their cells, tissues and organism have deteriorated. So, in order to prolong their life, they have to eat balanced food frequently, however some can't afford to eat thrice because of financial constraints [14] [15].

Majority of the geriatrics 64% (297/465) take care of themselves and 32% (150/465) are taken care by relatives, only 4% (18/465) are taken care by the community in collaboration with Ministry of Health and Social Welfare. Previously elders in this district used to be cared by their family or relatives who used to live in extended family this was part of their culture, however currently there is a great move of the young people from the villages to town looking for employment as a result the elder are left along in the villages taking care of themselves [16].

Among the geriatric only 12% (57/465) are exempted by the government from cost sharing or paying for health services, the rest 59% (273/465) have to pay for their health services and 29% (135/465) have health insurance, and when they were asked if they were aware that at their age they are supposed to be exempted 32% (150/465) they responded that they were aware. Majority, 68% (315/465) were not aware that at their age they are exempted, this could be due to the fact that they were not informed of such exempted.

Looking at perceived aging advantage and disadvantages, 53% (248/465) of the responded that they felt food, while 22% (n = 104) they field normal and 25% (n = 113) they felt bad. Those who felt bad it could be due to the fact that previously the elder were considered as people with wisdom but currently they are considered as

Table 5. Reported social activities among the elderly group.

Activities	Kahama	Isaka	Kagongwa	Total	%
Smoking	61	81	66	208	25
Alcohol consumption	57	77	59	193	23
Sexuality	109	111	107	327	38
Others	50	29	37	116	14
Total	277	298	269	844	

people who are outdated, some said that the life is quite difficult as they don't have energy to work and the government can't support them in terms of basic needs such as food, soap, clothes shelter e.tc. Generally, they felt as if they are victims of ageism from their society as well as from the government similar to other findings elsewhere [17].

Walking distance from health facilities; some live a good distance from the health facility 51% (n = 239) live within one hour walking distance to reach the nearby health facility, whereas 29% (n = 135) more than 2 hours of walking distance, and 20% (n = 91) they live more than 2 hours walking distance. This is of particular concern as elderly group they get sick so often as compared to the normal group. When they are sick they can't walk a very long distance to reach the nearby health facility as public transport is not available and when available they would probably can't afford. In this case most would look for another alternative for treatment. This poses a concern that something has to be done for the elders, however the policy of the government is well stipulated that every village should have a health facility, but majority of the health facilities don't have drugs, so they have turned up to be canters for getting prescriptions [18].

Impact of HIV/AIDS for the elderly whether they have been affected by HIV/AIDS, 185 (40%) agreed that they have been affected the rest (n = 280, 60%) have not been affected, for those who have been affected (n = 3, 2%) they were the victim, 45% (n = 84) are taking care of orphans and 80 (43%) have lost their beloved children due to HIV/AIDS, the problem facing this neglected age group are as follows: There is no clinic for geriatrics or a place where they can get information on HIV/AIDS, similarly for other diseases such as worm infestation, diabetes, enlarged prostate [19]. If screening is done earlier, then treatment can as well be initiated earlier, otherwise they are attended when their health problems are in advanced stage.

During the study the common diseases affecting geriatrics were as follows:

1) Eye problems which constitute 17% of the top ten disease from the health facilities, they include decreased in visual acuity to focus, funding aging processes the eye loses its elasticity resting in inability for focus clearly, this can be managed in the tertiary stage by using corrective glasses. The challenges facing the health facilities are lack of eye specialist especially in the peripheral areas of Tanzania [20].

2) Arthritis is the second common diseases of the elderly age group, which can progress to joint degeneration, but this kind of degeneration can be reduced in the tertiary stage by giving them drugs that reduce the progression. Also special care along with physiotherapy, however such conditions are managed at special centers where physiotherapy department exist [15] [21].

3) Hearing problems: with ageing the ability of hearing is reduced so screening using audiometer is important because they can benefit from tertiary management by providing them with devices [19] [22].

4) Urinary tract infection is geriatrics is common especially in post-menopausal women; this can be diagnosed earlier before complications [23].

5) Dental problems in geriatric is common thus why in other countries especially the developed countries have expertise in geriatric dentistry or periodontics who deal with dental problems from diagnosis, treatment of the associated problems and prevention also provision of denture [12] [24].

6) Malaria was also some of the disease which ranked number 4, but this can be prevented by using different interventions for instance use of impregnated mosquito nets.

7) Hypertension ranked number 5 sometime it is called a silent killer because at time it density show symptoms but its effect is more focused to some organs such as Kidney, eyes, heart so it is important for geriatric to undergo screening of blood pressure and treat, otherwise many people are suffering from complications such as stroke [12] [19] [25].

8) Backache ranked number 5, at old age bones become weaker with age and there are many causes of which some can be treated medially some by surgical intervention so it is good for geriatric to undergo regular physical checkups [26].

9) Prostate enlargement is a disease of old age thus prostate enlarges as man ages, if the enlargement is allowed to continue cab end up into complications e.g., cancer or the prostate, urinaryretention. Early diagnosis and treatment is important; however, the cost of operation is some health facility is exorbitant. This surgical problem can be cured if diagnosis earlier and treated before complications start [27]. Undesirable social activities; the following are some of the undesirable activities of the elderly however some have reduced or stopped due to financial constraints but occasionally they practice when they have money are; Smoking Tobacco cigarettes (n = 208, 25%), taking alcohol (n = 193, 23%) all these social activities have bad health effect e.g. they can potentiate stroke, Diabetes, Hypertension etc., especially at their age, so health education should be given to

reduce this risk factors.

5. General Observation

In many parts of Tanzania including Kahama there are many clinics conducted at the health facilities e.g. Antenatal Clinic (ANC), Reproductive Child Health (RCH), TB and Leprosy Clinic, Eye Clinic, Dental Clinic etc. However, there is no geriatric clinic for health assessment and screening or counseling in all heath facilities visited during the study.

6. Conclusion

A majority of the elderly age group in Kahama District are not aware of their rights that they deserve free treatment according to Tanzania policy. Many of the health problems affecting elderly are preventable at different stages especially at the tertiary stage e.g. by provision of supportive equipment's e.g. crutches, wheel chairs, spectacles, and audio devices. Indeed a majority of the elderly die prematurely due to preventable diseases. Currently, tertiary prevention is given to elders but many diseases affecting the elders can be alleviated in the tertiary stage by provision of supportive support e.g., spectacles, crutches, wheel chairs, audio devices among others. A majority of the lenders die prematurely due to preventable diseases.

Competing Interests

The authors declare that they have no competing interests, and neither the principal investigators nor the co-investigators have actual or potential conflict of interest.

References

[1] URT (2003) Ageing and Poverty in Tanzania: Tanzania Country Report. Vice President's Office. United Republic of Tanzania. http://www.tanzaniagateway.org/docs/Ageing_and_Poverty_in_Tanzania.pdf

[2] Coleman, D. (2001) Population Ageing: An Avoidable Future. *Social Biological and Human Affairs*, **66**, 1-11.

[3] Leman, R. and Achnidt, S.R. (1999) Economic, Social and Demographic Trends Affecting Labour Market. US Department of Labor, Urban Institute, Washington DC.

[4] Pesic, L. (2007) Social and Health Problem of the Elderly. Review Article. *Acta Medica Medianae*, **46**, 2. http://publisher.medfak.ni.ac.rs/2007-html/2-broj/Ljiljana%20Pesic-abs.htm

[5] Marie, J., Romieu, I. and Cambois, E. (1999) Health Expecting Indicators. *WHO Publications*, **184**, 2.

[6] Barber, J. and Wallis, J. (1976) Assessment of the Elderly in General Practice. *Journal of the Royal Collage of General Practitioners*, **26**, 106-114.

[7] Barber, J.H. and Wallis, J. (1978) The Benefits to an Elderly Population of Continuing Assessment. *Journal of the Royal College of General Practitioner*, **23**, 428-433.

[8] Irwin, W. (1971) Geriatric Practice and the Health Center. *Modern Geriatrics*, **1**, 265-269.

[9] Baker, A. (1975) Granny Battering. *Modern Geriatric*, **8**, 20-24.

[10] O'Keeffe, M., Hills, A., Doyle, M., *et al*. (2007) UK Study of Abuse and Neglect of Older People. National Centre for Social Research.

[11] Copper, C., Selwood, A. and Livingstone, G. (2008) The Prevalence of Elder Abuse and Neglect. A Systemic Review. *Age and Ageing*, **37**, 151-160. http://dx.doi.org/10.1093/ageing/afm194

[12] Tomlin, S. (1989) Unnecessary and Preventable Problem. British Geriatric Society.

[13] Lipsky, P.E., *et al*. (2000) Treatment of Rheumatoid Arthritis. *The New England Journal of Medicine*, **343**, 1594-1602. http://dx.doi.org/10.1056/NEJM200011303432202

[14] Jumana, D. (2003) Issues of Elder Care and Elder Abuse in the Indian Context. *Journal of Aging & Social Policy*, **152**, 125-142. http://dx.doi.org/10.1300/J031v15n02_08

[15] Singh, C., Mathur, J.S., Misra, V., Singh, R. and Garg, B. (1999) Social Problems of Aged in Rural Population. *Indian Journal of Community Medicine*, **19**, 23-25.

[16] Thaku, R., Banerjee, A. and Nikumb, V. (2013) Health Problems among the Elderly, Across-Sectional Study. *Annual of Medical and Health Science Research*, **3**, 19-25. http://dx.doi.org/10.4103/2141-9248.109466

[17] Elango, S. (1998) A Study of Health and Health Related Social Problems in Geriatric Population in Rural Areas of

Tamil Nadu Indian. *Journal of Public Health*, **42**, 78.

[18] Goel, P., Singh, J.V., Bharnagar, M. and Chopra, H. (2003) AJPAIs: Unmet Needs of the Elderly in Rural Population of Meer. *Indian Journal of Community Medicine*, **28**, 165-166.

[19] Jain, A. and Amit, D. (2010) Care If the Elderly in General Practice. A Guide to Geriatric Care.

[20] Fotit, J. and Anderson, D. (2012) Association between Perception of Wellness and Health Related Qualify of Life, Co-Morbidities Modifiable Lifestyle Factors and Demographics in Older Australians. *Australasian Journal on Ageing*, **31**, 17-21.

[21] Pandve, H. and Deshmukh, P. (2010) Health Survey among Elderly Population Residing in an Urban Slum of Pune City. *Journal of the Indian Academy of Geriatrics*, **6**, 5-8.

[22] Lena, A., Ashok, K., Padma, M. and Kamath, A. (2009) Health and Social Problems of Elderly. *Indian Journal of Community Medicine*, **34**, 131-134. http://dx.doi.org/10.4103/0970-0218.51236

[23] Fitzpatrick, A.L., *et al.* (2004) Barriers to Health Care Access among the Elderly and Who Perceives Them. *American Journal of Public Health*, **94**, 1788-1794. http://dx.doi.org/10.2105/AJPH.94.10.1788

[24] Park, K. (2013) Visual Impairment and Blindness: Editor, Parks Text Book of Preventive and Social Medicine. 22nd Edition, 371-374.

[25] Glass, T.A. (2003) Successful Aging: Text Book of Geriatric Medicine and Gerontology. 6th Edition, 173-179.

[26] Pennix, B., Van, T.T., Boeke, A.J., *et al*. (1998) Effects of Social Support and Personal Coping Resources on Depressive Symptoms. *Health Psychology*, **17**, 551-558. http://dx.doi.org/10.1037/0278-6133.17.6.551

[27] Ngallaba, S.E., *et al*. (2013) Geriatric Injuries among Patients Attending a Regional Hospital in Shinyanga Tanzania. *Tanzania Journal of Health Research*, **14**, 1-9.