Health-Seeking Behaviour Among Elderly Men with Non-Communicable Diseases: Insights from an Outpatient-Based Cross-Sectional Study in Sri Lanka

Dr. Miguel Santos[1]*, Dr. Sofia Almeida[1]
[1]University of Lisbon Medical School, Department of Public Health and Preventive Medicine, Lisbon, Portugal

Keywords:
Traditional medicine, Non-communicable diseases, Medical pluralism, Older men.

Abstract

Background: Various studies have shown that non-communicable diseases (NCDs) especially diabetes and hypertension are prevalent men living in Matara district, placing a heavy burden on the healthcare system.

Objectives: This study aimed to understand the health-seeking behaviour, healthcare practices and prevalence of traditional medicine (TM) use among older men having NCDs.

Methods: A convenient sampling was used to recruit men who were > 40 years (n = 250). Descriptive statistics were used to examine the number of NCDs reported by the study sample, health seeking behaviour and practices as well as TM use. Logistic regression was also employed to investigate possible associations between reported conditions and TM use or medical pluralism.

Findings: Within the study sample, 72.4 % self-reported an NCD. Of those with self-reported NCDs, 33.2 % had one, and 39.2 % had two or more NCDs. Those with NCDs usually visited Government health facility (88.1 %), relied on doctors (95.2 %) and other health professionals (28.1 %) for health information, and mostly used TM to manage diabetes (42.4 %). Medical pluralism was mostly evident among men (with NCDs) suffering from headaches. Participants with dental problems (OR: 4.34, 95 % CI: 2.51–6.37), headaches (OR: 2.89, 95 % CI: 1.56–6.32) were more likely to use TM.

Conclusion: Self-reported NCDs with co-morbidities were prevalent among the participants in the study. Most of the study participants utilized state-owned clinics and hospitals for the management of their chronic conditions. TM use was not very common. However, among those who used TM, medical pluralism was prevalent. Family history was the most common reason for TM use, with many TM patients using these for treatment of a health condition.

Introduction

Non-communicable diseases (NCDs), accounting for about two-thirds of deaths globally (35 million), pose a significant public health challenge. More than 80 % of these deaths occur in low- and middle-income countries, with two-thirds of such deaths in people older than 60 years [1]. With increasing age, people are more susceptible to developing at least one NCD, with the attendant co-morbidities, and are also at higher risk of long-term consequences of NCDs [2]. According to the NCD Alliance [3].

In Sri Lanka, the epidemiological transition has seen a shift in mortality from mostly infectious diseases to chronic NCDs [4]. Life expectancy in Sri Lanka has been gradually increasing in recent years. Presently in Sri Lanka, there are about`40 % people older than 40 years, representing of the total population [4]. The aging population is expected to further burden the already challenged healthcare system. This is of great concern given the high prevalence of NCDs and their attendant morbidity and mortality. Many studies have reported a prevalence exceeding 65 % for

chronic diseases among older people (≥65 years) [5]. Such risk of NCD may increase with urbanization and its attendant lifestyle modifications, especially in developing countries[5].

Although studies on health-seeking behaviour of older men in other parts of the world exists, there are few such studies done in Sri Lanka. This study, therefore, aimed to explore the health-seeking behaviour, healthcare practices and prevalence of traditional medicine (TM) use among a sample of elderly males (> 40 years) having NCDs visiting Out Patient Department (OPD) of General Hospital Matara.

Methods

This was a cross sectional analytic study and conducted in April 1st to 30th of May 2018. Convenient sample of 250 males > 40 years coming to OPD, General Hospital, Matara were recruited for the study.

Data were collected by two trained data collectors using a pre tested Questionnaire. Informed written consent was obtained from all the subjects in standard manner. Mostly closed ended questions were asked to minimize recall bias. Few more questions were asked to ensure validity of the questions. During interview sessions uniform way of questioning was maintained as much as possible to keep comparability.

Further data collection was terminated when desired sample size is achieved. Principal Investigator performed the 5% of interviews that has been finished to check the validity of data. Pre-test was performed by the Principal Investigator. The pilot study was conducted in the study area prior to the commencement of study proper. It was ensured that the mothers included in the pilot study will not be recruited for the study proper. It was carried out to identify potential problems regarding interviewing, logistics and work-plan.

The data collectors were given a course of three days training initially. The objectives of the training programme were to provide the necessary knowledge and the skills on data collection and completion of the questionnaires/ data recording sheet accurately. Before the training, they were provided with a manual of instruction for interviewers to read in advance. This facilitated training and they were able to raise queries regarding the procedure. All the items given in the manual was discussed in great detail. First day of the training was devoted to provide theoretical knowledge and skills. On the second day the data collectors was sent to Base Hospital Kamburupitiya to fill the questionnaires on a trial basis. On the third day, those findings were discussed and their problems were duly tackled.

Ethical approval for the study was granted by Ethics Review Committee of National Hospital of Sri Lanka.

Stata 11.2 statistical software package[6]was used to enter and analyze data. Using frequency distributions, relationships between socio-demographic variables and the number of self-reported NCDs in men who were >40 years older at the time of the study were explored. Men were defined as having an NCD if they self-reported a clinical diagnosis of hypertension, diabetes, arthritis, cancer, heart or cardiovascular disease, stroke, depression, hypercholesterolemia. They were then categorized into groups based on self-reporting ‘None,’‘One,’ or ‘Two or more’ conditions.

Frequency distributions were calculated for different health behaviours reported by these men, who had reported an NCD. Of primary interest to this study was the types of health facilities visited by the study population; the means of accessing health information; types of TM used; and use of TM. The characteristics of TM use were also assessed among men who were >40 years, with NCD, and who reportedly use TM. In this same sub-sample, the prevalence of TM use for different self-reported NCDs was also examined.

Finally, the relationship between different reported conditions and use of only TM or TM in combination with TM (medical pluralism), among older men who self-reported having an NCD, was examined. For this analysis, logistic regression was employed to calculate crude odds ratios (ORs) and 95 % confidence intervals (95 % CIs). The relationship between participants’ NCD co-morbidities and odds of using TM or medical pluralism were also examined. Men were considered to have a co-morbid NCD if they reported two or more diagnoses of the mentioned NCDs. In this analysis, the primary focus was on predictors of TM use and medical pluralism using marginal associations, rather than building causal models that adjust for potential confounders.

Results

Table 1 presents the socio-demographic structure of the study population.

Table 1- Relationship between the number of non-communicable diseases (NCDs) self-reported and socio-demographic variables for older men (n=250)

Socio-demographic characteristics	**Self-reported NCDs**		
	Number (%)		
	0	**1**	**≥2**
Prevalence of number of NCDs	69 (27.6)	83 (33.2)	98 (39.2)
Marital status			
Married/cohabiting	39 (56.5)	40 (48.2)	39 (39.8)
Never married	15 (21.7)	17 (20.5)	21 (21.4)
Widowed, divorced, separated	15 (21.7)	26 (31.3)	38 (38.8)
Highest education level			
None or primary	23 (33.3)	27 (32.5)	30 (30.6)
Secondary (8−12)	42 (60.9)	47 (56.6)	62 (63.3)
Tertiary or other	4(5.8)	9(10.8)	6(6.1)
Employment			
Yes	55 (79.7)	69 (83.1)	90 (91.8)
No	14 (20.3)	14 (16.8)	8 (8.1)
Monthly household income			
<Rs50000 *PM	59 (85.5)	65 (79.3)	82 (83.7)
Rs50000−R100000 PM	9 (13.0)	14 (16.9)	13 (13.3)
Rs>100000 PM	1 (1.4)	4 (4.8)	3(3.0)
Religion			
Buddhists	66 (95.7)	80 (96.4)	95 (96.9)
Other	3(4.3)	3(3.6)	3(3.0)

*PM=per month

Most of the study subjects 39.2% had **≥2** NCDs. Most of them were married. Majority had received secondary education. Most of them were employed. Majority of study subjects had monthly income <50 000 per month and were Buddhists.

Table 2- Health behaviours of older men with non-communicable diseases (n=210)

Variable	No.	(%)
Access to healthcare:		
General Practitioners/Western	157	74.8
Government health facility	185	88.1
Traditional practitioner	55	31.9
Self - medication	7	3.3
Receives health information:		
Doctor/Western	200	95.2
Doctot/TM	28	13.3
Other health professionals	59	28.1
Books	19	9.1
Internet	56	26.7
TV	19	9.1
Radio	38	18.1
Family members	17	8.1
Conditions treated with TM:		
High blood pressure	17	8.1
Pain	78	37.1
Anti-retrovirals	12	5.7
Heart	25	11.9
Diuretics	17	8.1
Allergies	43	20.5
Diabetes	89	42.4

According to Table 2, majority of older men got treatment from Government health facilities. Most of them received health information from Western doctors. Diabetics trusted mostly in TM for treatments.

Table 3 -Characteristics of traditional medicine (TM) use among older men with non-communicable diseases (n=55)

Variable	Number(%)
Reason for use:	
Family history	26 (47.3)
Cultural beliefs	12 (21.8)
Low cost	9(16.4)
Easy accessibility	7(12.7)
Positive recommendation	19 (34.5)
Western treatment failure	0(0.0)
Cures diseases	7(12.7)
Treat a condition	25 (45.5)
TM obtained:	
Market	27(49.1)
Traditional practitioner	9(16.4)
Personal harvest	11 (20.0)
Pharmacy	11 (20.0)
TM Administration:	
Tea	44 (80.0)
Decoction	4(7.3)
Powder	4(7.3)
Extract	8(14.5)
Tablet	1(1.8)
Topical	1(1.8)
Uses TM in combination with conventional medicine	29 (52.7)
(medical pluralism)	

According to Table 3, most of them used TM because of family history. Majority of subjects received TM from the market as tea.

Table 4- Odds of using only traditional medicine (TM) and TM in combination with conventional medications for different reported health conditions in older men with non-communicable diseases (NCDs)

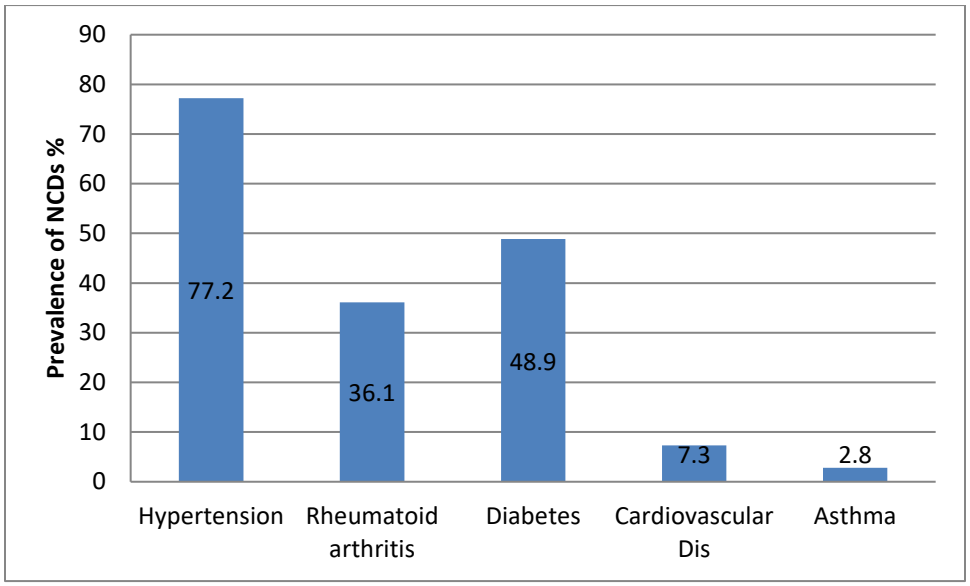
	TM use		**Medical pluralism***	
	Number (%)	**Crude OR (95 % CI)**	**Number (%)**	**Crude OR (95 % CI)**
Comorbidity with another NCD	31 (56.4)	1.13 (0.60–2.16)	17 (58.6)	1.31 (0.42–3.57)
Allergies	20(36.4)	1.42(0.67–2.57)	18(62.1)	19.64 (4.62–138.10)
Breathing difficulties	13(23.6)	0.86(0.38–1.65)	8(27.)	1.60(0.46–6.06)
Heart burn	25(45.5)	2.34(1.18–4.48)	13(44.8)	0.95(0.33–2.76)
Pains in the chest	17(30.9)	1.26(0.57–2.31)	6(20.7)	0.36(0.10–1.14)
Headaches	40 (72.7)	2.89 (1.56–6.32)	23 (79.3)	2.03 (0.61–7.11)
Stiff or painful joints	35(63.6)	1.68(0.93–3.50)	18(62.1)	0.95(0.31–2.93)
Dental problems	12 (21.8)	4.34 (2.51–6.37)	6(20.7)	0.87 (0.24–3.20)

Bowel problems	10 (18.2)	1.18 (0.49–2.67)	5 (17.2)	0.88(0.22–3.55)
Dizziness or loss of balance	24(43.6)	1.94(1.00–3.75)	12(41.4)	0.82(0.28–2.40)
Sadness	15(27.3)	1.58(0.79–3.52)	9(31.0)	1.5 (0.45–5.23)
Back pains	27(49.1)	1.37(0.77–2.78)	16(55.2)	1.68(0.58–4.98)
Anxiety	11(20.0)	1.85(0.77–4.32)	9(31.0)	5.40(1.22–38.19)

*Those who use Western medicine in conjunction with TM

Medical pluralism was most likely in subjects (having NCDs) with conditions of allergies and anxiety according to Table 4.

Figure 1- Prevalence of NCDs among older men using TM



Discussion

With regard to their health-seeking behaviours, most of the participants in the present study visited Government health facilities, followed closely by General Practitioners/Western. This may be due to ease of accessibility to Government health facilities in Sri Lanka. Many older men sought medical care from General Practitioners/Western is also notable.

Co-morbidities have been found to be a common phenomenon among the elderly [7,8]. The prevalence of co-morbidities was higher (54 %) in the present study compared to those previously reported for Sri Lanka [4]. However, studies conducted in other parts of the world such as the United States (65 %) [9] and Bangladesh (53.8 %) [10], reported a prevalence of co-morbidity similar to that of the present study. This present study indicates that participants with co-morbidities were less likely to use TM than those without co-morbidities. This is in contrast to a study conducted in the United States which aimed to examine the association between the type of multimorbidity and complementary and alternative medicine use among adults with multimorbidity [11].

Older men, particularly those within the ages 50 and 64 years, as well as those living in rural areas or non-urban environments are also known to be major users of TM [33, 34]. In the present study, about one-fourth of the respondents with NCDs used TM. Among older men who had NCDs and used TM, a large fraction reported having hypertension, a finding supported by several other studies [12-14]. Several factors influence TM use among older men. According to McLaughlin et al., [15] personal beliefs and social net-works are influences to TM use. The present study showed that TM use was associated with family history and positive recommendations from other individuals. Interestingly, cultural beliefs were not a very popular reason for TM use among the study participants. The reason for this might be because most of the participants in this study were born in Matara city, an urban area. For them, the term ‘cultural beliefs’ may be something associated with a rural lifestyle, with which they have never identified.

The present study also documents that TMs are used extensively to treat health conditions, which differed from other studies where TM were used more for health maintenance [14, 15]. Symptoms such as headaches, severe tiredness, and dental problems all had a positive association with THM use (Table 4). According to Alwhaibi et al., [11] the presence of a physical illness with a chronic condition was associated with TM use in their study. The positive association reported in the present study may perhaps also be by reason of the participant’s view of these symptoms as merely self-limiting, without the need for specialized care. Hence, their preference to self-medicate rather than consult a healthcare practitioner. Medical professionals’ awareness of older men’s habits to treat specific symptoms with TM will help them in prescribing efficacious medicines to alleviate these symptoms. This will simultaneously reduce adverse effects or drug-TM interactions which may be caused by TM use alone or in combination with Western medicines.

There are several study limitations that should be addressed. Only older men visiting OPD, General Hospital Matara were recruited for the study and it was a convenient sample. Therefore, the results cannot be generalizable to other contexts within Sri Lanka. Second, the study utilized self-reported measures of NCDs which were not cross-checked with any medical records or doctor’s diagnoses. Therefore, the chance is that the study could have suffered from misclassification.

Conclusion

Learning how to care for and treat older men, especially those with multiple NCDs is very important in planning health care delivery. This is because of their social and economic relevance within their communities. Healthcare workers should be more observant of medical pluralism, and educate patients on the importance of disclosure of their TM use. Enabling conditions to improve the communication gap between older men with NCDs and the health caregivers are also vital.

References

1. World Health Organization. Mortality and burden of disease estimates for WHO Member States in 2004. Geneva: World Health Organization; 2009.
2. Williams R, Krakauer R, et al. The challenge of non-communicable diseases and geriatric conditions. In: Beard J, Biggs S, Bloom D, Fried L, Hogan P, Kalache A, Olshansky SJ, editors. Global population ageing: peril or promise? Geneva, Switzerland world economic forum (Global Agenda Council (GAC) on ageing society). 2011.

p. 78–81. http://www3.weforum.org/docs/WEF_GAC_GlobalPopulationAgeing_Report_2012.pdf. Accessed 11 Aug 2018.
3. The NCD Alliance. Non-communicable Diseases: A priority for Women's health and development.http://ncdalliance.org/sites/default/files/resource_files/Non%20Communicable%20Diseases%20A%20priority%20for%20womens's%20health%20and%20development.pdf. Accessed 16 Jul 2018.
4. Non Communicable Disease Report 2017-Ministry of Health Sri Lanka
5. Lehnert T, Heider D, Leicht H, Heinrich S, Corrier S, Luppa M, et al. Health care utilization and costs of elderly persons with multiple chronic conditions. Med Care Res Rev. 2011;68(4):387–420.
6. Stata Corp LLC 4905 Lakeway Drive, College Station, Texas 77845-4512 USA; www.stata.com
7. Sharma D, Mazta SR, Parashar A. Morbidity pattern and health-seeking behaviour of aged population residing in Shimla Hills of North India: a cross-sectional study. J Family Med Prim Care. 2013;2(2):188–93.
8. Sharma D, Mazta SR, Parashar A. Morbidity pattern and health-seeking behaviour of aged population residing in Shimla Hills of North India: a cross-sectional study. J Family Med Prim Care. 2013;2(2):188–93.
9. Wolff JL, Starfield B, Anderson G. Prevalence, expenditures, and complications of multiple chronic conditions in the elderly. Arch Intern Med. 2002;162(20):2269–76.
10. Khanam MA, Streatfield PK, Kabir ZN, Qiu C, Cornelius C, Wahlin Å. Prevalence and patterns of multimorbidity among elderly people in rural Bangladesh: a cross-sectional study. J Health PopulNutr. 2011;29(4):406–14.
11. Alwhaibi M, Bhattacharya R, Sambamoorthi U. Type of multimorbidity and complementary and alternative medicine use among adults. Evid base Compl Alternative Med. 2015. Article ID 362582: 9 pages. doi:10.1155/2015/362582.
12. Bell RA, Suerken CK, Grzywacz JG, Lang W, Quandt SA, Arcury TA. CAM use among older adults age 65 or older with hypertension in the United States: general use and disease treatment. J Alternative Compl Med. 2006;12(9):903–9.
13. Gohar F, Greenfield SM, Gareth Beevers D, Lip GYH, Jolly K. Self-care and adherence to medication: a survey in the hypertension outpatient clinic. BMC Complement Altern Med. 2008;8:4.
14. Hughes GD, Aboyade OM, Clark BL, Puoane TR. The prevalence of traditional herbal medicine use among hypertensives living in South African communities. BMC Complement Altern Med. 2013;13:38.
15. McLaughlin D, Lui CW, Adams J. Complementary and alternative medicine use among older Australian women–a qualitative analysis. BMC Complement Altern Med. 2012;12:34.