

Prevalence & Pattern of Ayurveda Beneficiaries Among Indian Military Personals

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ABSTRACT

Use of Ayurveda medicine in military populations and their family remains unclear in our country where Ayurveda practised more and originated. Therefore a study was proposed to find out the prevalence and pattern of Ayurveda medicine use in military personals in Sikkim. Total 607,000 civilian people are in Sikkim and nearly 70,000(seventy thousand) military personals including their family members (Army, ITPB, SSB, BRO and IRB) were in Sikkim. Current study was conducted in Ayurveda Regional Research Institute in Sikkim in between April 2008 to March 2011. The acceptance and popularity of Ayurveda treatment among military personals was gradually increased from 12% (2008-09) to 20% of total OPD attendance in consecutive three years. The diseases that preferred for Ayurveda treatment among the military patients were Musculo-skeletal diseases, Acid Peptic Disorder, Erectile disorders, ano-rectal diseases, Irritable Bowel Syndrome, Skin diseases and mental diseases. The Study reveals that 26.83% of OPD attended military patients were prefer Ayurveda in all diseases compared to 83.27% military personals prefer Ayurveda in selected disorder. 82.96% of military personals and their family members were very satisfied with the treatment especially in muscular-skeletal disorder where surgery was the treatment of choice in modern medicine. The policy maker should understand the need of Ayurveda in military personals and establish Ayurveda clinic in all military hospital. A population based study for the use of Ayurveda among Indian military personals is recommended to know the actual demand of Ayurveda.

Keywords: Indian Army & Ayurveda, Military personals, Complementary and alternative medicine, *Panchakarma*, *Ksharasutra*.

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INTRODUCTION

National Health Policy for Indian System of Medicine and Homeopathy (AYUSH) 2002 has included Ayurveda in Central Government Health Scheme and also in State Government Health Scheme for widespread accessibility of Ayurveda. Ayurveda is widely used, is growing rapidly and gained popularity in our country and abroad. This broad use of Ayurveda is often attributed to its easy accessibility, affordability and also its embedment with wider belief system supported by evidences generated through research¹. Now people can assess the adverse affect of chemical drug and modern approaches to chronic diseases. Moreover people seek Ayurveda due to dissatisfy in conventional treatment. Longer life expectance has bought the risk of developing chronic diseases like –Osteoarthritis, cancer, diabetic mellitus, Ischemic heart disease, psoriasis, depression etc where Ayurveda appears to be gentle means of curing with good outcome than allopath medicine^{2,3}. As per 2010 census, India has nearly 50,00000(five million) military personals and spend 2.5% of its GDP. National Accreditation Board for Hospitals & Healthcare has also accredited Ayurveda hospital as like allopathic hospital to maintain the quality in health care system. Now a day's Indian military personals can reimburse of Ayurveda treatment apart from allopath. A ten bedded Ayurveda hospital for chronic diseases in Army Base Hospital in Delhi Cantonments marks the Army's recognition of a surging interest in Ayurveda in defence organisation⁴. Defence Research Development Organisation has developed *Tulsi* based anti radiation agent, Aloe Vera based anti frost bite cream and one herbal drink based on Ayurveda for army personals posted in high altitude areas to acclimatise fast to the worst weather. DRDO has transferred the technology of some patent formulation to one ISO certified Ayurveda

pharmaceutical i.e. AIMIL pharmaceutical (India), Ltd, New Delhi; however DRDO has no Ayurveda doctor/specialist to conduct clinical trial as per WHO norm.

There is also some fear that use of Ayurveda and other alternative and complimentary practices may result in unforeseen health consequences in military⁵. The Indian defence establishment has very complex and not interested to adopt Ayurveda in the health care of defence personals. The risk and benefit of unmanaged case of allopathic medicine, fuel the interest of military personals and their family member over the use of Ayurveda. A number of studies have also looked at Complementary & Alternative Medicine (CAM) in U.S. military populations and found it to be fairly consistent with that of civilians. Typical reasons cited for choosing CAM among military populations include current high daily stress, impact of military life on physical or mental health, physician-diagnosed chronic illnesses, and the potential side effects from prescribed medications. Motivation for CAM use may also involve the realization that conventional care may not adequately address chronic conditions, which are often reported by those using CAM discipline^{6,7}. There were some studies regarding the acceptance of Ayurveda in civilian and military population in our country⁸⁻¹¹. Some studies had also examined the prevalence and impact of complementary and alternative medicine in countries which have ready access to conventional medicine. A recent study examined CAM use within a population of US military and their families and reported that 27.3% and 49.6% used some form of CAM^{12,13}. National Institutes of Health's National Centre for Complementary and Alternative Medicine spends about \$300 million a year on alternative medicine research to study the use in military

person¹¹. However, Ayurveda use in healthy, diseased military populations and their family remains unclear in our country. Therefore it is necessary to study the prevalence and pattern of Ayurveda medicine use in military personals and their family member. This study was conducted in Ayurveda Regional Research Institute, Gangtok, Sikkim as more military personals are deployed in this area. This study is an effort to scientifically identify and investigate selected areas of Ayurveda that offer the most health-maintenance and optimization benefit for military personals in Sikkim. In this current study, we document the prevalence of Ayurveda use and the characteristics of military personals and their family member those who report in Ayurveda Regional Research Institute in Sikkim in between April 2008 to March 2011.

SUBJECT AND METHODS

Study site

Sikkim has total land of 7096 square kilometres with wedged between Nepal in west and Bhutan in East and China in north and north –east. It is border state with 300m to 8585m of altitude. Total 607,000 people are in Sikkim and nearly 570,000(fifty thousand) military personals and their families (Army, ITPB, SSB, and BRO) were in Sikkim. Ayurveda Regional Research Institute, Tadong, Gangtok is the only full phased Ayurveda unit of government of India with Panchakarma and Ksharsutra facilities near the military and paramilitary base. Therefore ARRI, Tadong was selected as the study site.

Subject

The study population targeted was the patients of military personals and their families irrespective of age and sex, attending Ayurveda Regional Research Institute,

Tadong over a three years period, from the April 2008.

Data Collection

The records of the study population including name, address, and age and phone number were collected from the registration counter of Ayurveda Regional Research Institute, Tadong Gangtok. Face to face interviews were set up at Ayurveda Clinic for additional data as per the pre designed data collection form.

The Interview

The military personals and their families interviewed as per predesigned data collection form. In this survey work, the respondents were informed about the interview. Twenty principal health problem/condition/diseases were selected out of 86 common health problem/condition/diseases that provided by Ayurveda research council. The respondent were asked about the reason for prefer Ayurveda and means of contact for which they attend this Ayurveda treatment. The respondent were also asked whether the respondents were received any unconventional therapy in past one year. Respondents were also asked about number of time used Ayurveda, the average expenditure, experienced side effect if any and the patients demographic.

Data analysis

The data were entered into a personal computer and both the chi-square and the odds ratio were used. The conventional < 0.05 level of statistical significance was used to determine the difference between groups.

RESULT AND DISCUSSION

The acceptance and popularity of Ayurveda treatment among military personals was gradually increased from 12% (2008-09) to 20% of total OPD attendance in consecutive three years with an average

growth of 18.10% in three years in Sikkim (Table-1). Indian army personals were more (49.47%) attended in the OPD of Ayurveda compared to the other paramilitary forces. Maximum Patients (60.08%) are military persons in comparison with their family members (Table-2). An attempt was taken to find out the interference of inhabitants of military personals and their family and found maximum military patients (34.39%) were from south India (table-3). It was observed from the OPD records that maximum civilian patients 9759(35.25%) were above the age of 50 years whereas maximum military patients 3643(53.18%) were in between the age of 35-49 years. Male patients were dominant in both civilian and military group. Maximum patients 2345(34.22%) were graduate in military group whereas maximum patients 12569(45.41%) in civilian group were below high school. Married patients were dominant in both the groups. Maximum patients 4228(61.72%) were solider followed by house wife 1892(27.62%) in military group (Table-4). Similar finding was observed in alternative and complementary medicine users by Martin R White *et al* and Eiad A. Al-Faris *et al*^{12,13}.

The predominant disease among the military patients were Musculo-skeletal diseases, Amlapitta (APD), Erectile disorder, ano-rectal diseases, Irritable Bowel Syndrome, Twak roga and Mental diseases whereas *Sandhivata* (arthritis), *twak roga*, *vibandha* (constipation), ano-rectal disorder, *Amlapitta* (APD), hypertension, diabetics and obesity were predominant diseases among civilian group (Table-5).

Maximum military personals preferred to use Ayurveda medicine (68.36%) followed by *Snehana*, *Swedan*, *Kativasthi*, *Ksharsutra* etc. Traditional way of bone setting was still preferred by a very less number (0.33%) of military personals in spite of all facilities in military hospital (Table no-6). Out of the OPD attended military patients,

maximum people were Ayurveda user over life(97.50%) and frequently used since one year and very less number (4.61%) of military people was not ready to take Ayurveda medicine internally and (14.27%) fear for mineral compound of Ayurveda. It is very interesting to noted that 26.83% of OPD attended military patients were prefer Ayurveda in all diseases compared to 83.27% military personals prefer Ayurveda in selected disorder(Table no-7). This study is also want to evaluate the level of satisfaction of military patient after the treatment and found maximum patients (82.96%) were very satisfied with the treatment especially in musculo-skeletal disorder where modern medicine has surgery as treatment of choice. Maximum patient (92.62%) was deep trusted to the attended Ayurveda physician of ARRI, Tadong, Gangtok for their disease (Table-8). The patients were expressed their hard ship to reach the Ayurveda hospital because military hospital never refer or support for Ayurveda treatment. Many patients complained that they are not able to reimburse the expenses incurred for Ayurveda treatment.

CONCLUSION

The acceptance and popularity of Ayurveda treatment among military personals has been gradually increased in consecutive three years. The diseases among the military patients that preferred for Ayurveda treatment were Musculo-skeletal diseases, Amlapitta (Acid Peptic Disorder), Erectile disorder, ano-rectal diseases, IBS, Twak roga (skin disorder) and Mental diseases. 26.83% of OPD attended military patients were prefer Ayurveda in all diseases compared to 83.27% military personals prefer Ayurveda in selected disorder. 82.96% of attended military personals were very satisfied with the treatment especially in musculo-skeletal disorder where modern medicine has surgery as treatment of choice. Ayurveda medicine, Panchakarma and Ksharasutra were the

options in health seeking behaviour for Ayurveda care of army personnel. The policy maker should introduce Ayurveda in all military hospital. Looking the demand it recommended that the military doctors should refer the patient to government Ayurveda hospital/ clinic for Ayurveda treatment and the expenses incurred for Ayurveda treatment should reimburse. DRDO should appoint Ayurveda doctor for more comprehensive research and clinical trial. Ayurveda doctor should be recruited in Indian military and paramilitary forces. A population based study for the use of Ayurveda among Indian military personals is recommended.

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Table 1. Year wise civilian and military personals attended ARRI, Tadong over the past three years

Year	No of Civilian Patients	No of Military Patients	Total	Percentage of Military
2008-09	8902	1215	10117	12%
2009-10	9857	2166	12023	18%
2010-11	9910	2478	12388	20%
TOTAL	27678	6850	34528	18.10%

Table 2. Distribution of different wings of military personals and their family are attended Ayurveda hospital.

S. No.	Type of Military Personals	No of Military Person	No of Family Member/Relative	Total no & Percentage of Military Personals
1	Indian Army	1872	1517	3389(49.47%)
2	ITBP	1325	492	1817(26.52%)
3	SSB	347	406	753(11.49%)
4	BRO/Swatik	519	314	833(12.16%)
5	Other	53	05	58(0.0085%)
	TOTAL	4116(60.08%)	2734(39.92%)	6850

Table 3. Region wise inhabitants distribution of Ayurveda medicine use among the studied military personals and their family

Region of India	No of military person & family member
South India	2356(34.39%)
North India	2045(29.85%)
East India	1153(16.85%)
North-East India	877(12.80%)
Western India	419(6.11%)
TOTAL	6850

Table 4. Variables of interest of total civilian and military personals attended OPD of ARRI, Tadong, Sikkim in three years

Variables	Total no	Civilian person	Military
Age			
>50years	10026(29.03%)	9759(35.25%)	267(3.89%)
35-49 years	12079(34.98%)	8436(30.47%)	3643(53.18%)
25- 35years	5266(%)	2788(10.07%)	2478(36.17%)
Below 25 years	2008(%)	1546(%)	462(6.74%)
Sex			
Male	19216(%)	14420(52%)	4796(70.02%)
Female	15312(%)	13258(48%)	2054(29.98%)
Education			
Below High School	13103(%)	12569(45.41%)	534(7.79%)
Intermediate	6579(%)	5367	1212(17.69%)
Graduate	5827(%)	3482	2345(34.22%)
Post graduate	3438(%)	3112	326(4.76%)
Marital Status			
Single	8229(%)	5778(%)	2451(35.78%)
Married	21930(%)	17613(%)	4317(63.02%)
Widow	2334(%)	2314(%)	39(0.56%)
Diverse	237(%)	214(%)	23(0.33%)
Occupation			
Soldier	4228(%)	Nil	4228(61.72%)
Officer	23(%)	Not recorded	24(0.35%)
Student	3024(%)	2516	508(7.41%)
House wife	6712(%)	4820(%)	1892(27.62%)
others			

Table 5. Use of Ayurveda medicine for the 15 most frequently reported principal health conditions in past three years

S.No.	Health condition	Reporting condition no (%)	Used by military and family no (%)
1	Amlapitta(Acid Peptic Disorder)	3839 (11.11)	1156 (16.87)
2	Sandhi vata(Arthritis)	4346 (12.58)	453 (6.6)
3	Katishoola(Back pain)	2312(6.69)	445(6.49)
4	Ababahuka(Cervical spondilitis)	1134(3.28)	368(5.37)
5	Vata vyadhi (Neuro –muscular)	1256(3.63)	572(8.35)
6	Sukra dosa(Erectile dysfunction)	320(0.926)	643(9.38)
7	Arsha & Bhagandhara (Ano-rectal diseases)	3892(11%)	782(11.41)
8	Shirashula(sinusitis)	1518(4.39)	169(2.46)
9	Vibandha(constipation)	2419(7.005)	276(4.02)
10	Ashmari (Uninary & gall stone)	234(0.84%)	120(1.75)
11	Twak roga (Skin diseases)	2115(6.125)	378(5.51)
12	Kesa roga(hair disaeases)	239(0.86)	98(1.43)
13	Pradar(Vaginal discharge)	587(1.700)	72(1.05)
14	Irregular Menstruation	512(1.48)	130(1.89%)
15	Hypertension	2478(7.466)	231(3.37)
16	Madhumeha (Diabetics)	1324(3.834)	74(1.06)
17	Medoroga(Obesity)	788(2.28)	46(0.67)
18	Kamala(Jaundice)	234(0.84)	13(0.18)
19	Manas roga(Mental disorder)	378(1.36)	437(6.37)
20	Grahani (Irritable Bowel Syadrom)	432(1.56)	549(8.01)

Table 6. Pattern of Panchakarma & Medicine use among the studied military personals and their family

S.No.	Types of Ayurveda medicine/procedure	No of patients	Percentage
1	Ayurveda medicine	4683	68.36
2	Snehana(Oil message)	1439	21.007
3	Swedana(fomentation)	1400	20.43
4	Vaman	01	0.023
5	Virechan	145	2.11
6	Vasthi	124	1.81
7	Kaya Seka	231	3.37
8	Kativasthi	546	7.97
9	Sira dhara	95	1.38
10	Ksharasutra	241	3.51
11	Agnikarma	02	
12	Jaluka(leech therapy)	11	
13	Bandage/plaster	23	0.33
14	Nasya	84	1.22

Table 7. The proportion of Ayurveda medicine use among the studied military personals and their family

S.N	Frequency and type of medicine	No of patient	Percentage
1	Ayurveda user over life	6679	97.50
2	Frequently used since one year	6435	93.94
3	Occasional use	415	6.06
4	Prefer only herbal	5873	85.73
6	Prefer herbo-mineral	977	14.27
7	Ayurveda Cosmetics	6361	92.86
8.	Prefer External application	316	4.61
9	Prefer Ayurveda in selected disorder	5012	83.27
10	Prefer Ayurveda in all diseases	1838	26.83

Table 8. Level of Satisfaction and trust in Ayurveda physician among military personals and their family

Characteristic	No of patient	Percentage
Level of satisfaction		
Very	5683	82.96
Some what	876	12.78
Not at all	291	4.24
Trust in physician		
completely	6345	92.62
Some what	430	6.27
A little/no	75	1.09

Table 9. Types of Ayurveda medicine

Types of Ayurveda medicine/procedure adopted	Frequency and type of medicine
	Ayurveda user over life
Snehana (Oil massage)	Frequently used since one year
Swedana (fomentation)	Occasional use
Vaman	Prefer only herbal
Virechan	Prefer herbo-mineral
Vasthi	Ayurveda Cosmetics
Kaya Seka	Prefer External application
Kativasthi	Prefer Ayurveda in selected disorder
Sira dhara	Level of satisfaction
Ksharasutra	Very
Agnikarma	Some what
Jaluka (leech therapy)	Not at all
Bandage/plaster	Trust in physician
Nasya	Completely
	Some what
	A little/no

Questioners

Prevalence & pattern of Ayurveda beneficiaries among Indian military in Sikkim

Name of Patient-	.....	Age-	.....	Sex-	.....	Religion-	.....
OPD/IPD no-	.....	Bed no-	.....	Marital status-		.....
Duration of disease				.....		
Date of examination				.....		
Education				.....		
Occupation				.....		
Type of Military personals – Indian Army/ITBP/SSB/BRO/ Swatik				.....		
Economic condition – Poor/middle class/ upper middle class				.....		
Means of contact for this treatment- Patient/ Internet/News paper/3rd party				.....		
Reason for prefer Ayurveda				.....		
Whether this patient treated as fresh / treated Ayurveda/ Homeopathy/ Allopath/				.....		
Permanent Address				.....		
Diagnosis				.....		