

AYUSH services provided by Life Style Diseases Clinics from Selected States in India: Patients' Perspectives

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Abstract

*AYUSH services have been viewed as one way of providing access to some way of health care services to the rural and poor population who are under served by the dominant system in India. In India, deaths from NCDs are projected to almost double from about 4.5 million in 1998 to 8 million by the year 2020. **Objective:** The objective of this paper is to study the AYUSH services provided at Life Style Diseases clinics for managing non-communicable diseases through NPCDCS in selected states in India. **Methodology:** The study was conducted in 6 States/Districts, with a total sample of 56 LSD clinics and 1790 beneficiaries. **Results:** It was found that model of LSD clinics established by all the three councils (Ayurveda, Unani & Homeopathy) were different. Patients reported that 73% were satisfied with the lab services and 20.6% were somewhat satisfied across states.*

Regarding diagnosis of disease, 71% were diagnosed with the hypertension and 65% were diagnosed with high blood sugar. About one-fifth of the patients (20.4%) were currently taking only AYUSH medicine, and more than one-third of the patients (35.6%) were taking AYUSH and allopathic medicine together. Medicines were dispensed mostly for hypertension followed by pre-hypertension, multi morbidity, pre-diabetes, and diabetes mellitus. In spite of several limitations,

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patients were highly satisfied with the AYUSH treatment and behaviour of doctors.

Introduction

According to the World Health Organization (WHO), 41 million deaths (71% of total deaths) due to non-communicable diseases (NCDs) occurred globally in 2018 (WHO, 2014). The main causes of NCDs - cardiovascular, diabetes, lung disease and cancer - are considered to be unhealthy lifestyle and bad habits (alcohol, tobacco, unhealthy diet, physical inactivity). Each year, 15 million people die from a NCD between the ages of 30 and 69 years; over 85% of these “premature” deaths occur in low- and middle-income countries. Cardiovascular diseases account for most NCD deaths, or 17.9 million deaths annually, followed by cancers (9.0 million), respiratory diseases (3.9 million), and diabetes (1.6 million). These 4 groups of diseases account for over 80% of all premature NCD deaths. Tobacco use, physical inactivity, the harmful use of alcohol and unhealthy diets, all increase the risk of dying from a NCD. Detection, screening and treatment of NCDs, as well as palliative care, are key components of the response to NCDs (WHO, 2018). In the structure of global trends, the concept of interdisciplinary approach to early diagnosis and personalized prevention of NCD in people of working age in order to maintain mental, physical health and longevity becomes one of the long-term priorities of development of medical science (Vyalkov et.al, 2014; Golubnitschaja & Costigliola, 2012).

The leading causes of non-communicable diseases may be due to industrialization, socio-economic development, rapid urbanization, demographic and lifestyle changes. NCDs are a result of a combination of genetic, physiological, and behaviour factors. Non-Communicable Diseases (NCDs) often called as lifestyle diseases or chronic diseases are defined as medical conditions that are known to affect individuals over an extensive period of time. All age groups and all regions can be affected by NCDs (Ministry of AYUSH).

Development and Integration of AYUSH with NPCDCS in India

The concept of mainstreaming of AYUSH was an idea in the 9th five year plan. A separate Department of Indian Systems of Medicine and Homoeopathy (ISM&H) was set up in 1995 to for development and propagation of AYUSH systems of health care. The Department of ISM & H was re-named as the Department of AYUSH (Ayurveda, Yoga and Naturopathy, Unani, Siddha, Homoeopathy) in November 2003 (Defu et al., 2017) and Department of AYUSH is formed as a separate Ministry known as Ministry of AYUSH in 2014. A large number of hospitals, teaching institutions and registered practitioners are under the Department of AYUSH system. According to recent statistics, there are 3,360 hospitals with 68,155 beds, 21,765 dispensaries, 485 colleges and 7,25,568 practitioners under AYUSH in India. The promotion of indigenous system of medicines is further strengthened through National AYUSH mission 2014 (www.ayush.gov.in).

The Government of India initiated a National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke (NPCDCS) in 10 districts of the country during 2008 as a pilot phase and later on during 2010-11 launched the programme in 100 districts of 21 States. In 2016-17 the number of approved districts increased to 616 (MOHFW, 2013). One of the mandates of this programme was to integrate AYUSH systems of Medicine with NPCDCS (NPCDCS, 2013). Therefore, in order to augment the efforts of the already existing NPCDCS, and promote health preservation, disease prevention and management of such Lifestyle diseases, the Directorate General of Health Services, Ministry of Health and Family Welfare with Ministry of AYUSH undertook a pilot project to integrate AYUSH systems with NPCDCS in 2015-16 to utilize the services of AYUSH doctors and yoga experts through AYUSH research councils. The project was initially implemented in six(6) districts of the country namely Gaya (Bihar), Bhilwara (Rajasthan) and Surendranagar (Gujarat) under Central Council for Research in Ayurvedic Sciences (CCRAS); Krishna (Andhra Pradesh) and Darjeeling (West Bengal) under Central Council for Research in Homoeopathy (CCRH); and Lakhimpur-Kheri (Uttar Pradesh) under Central

Council for Research in Unani Medicine (CCRUM). CCRH recently expanded to two (2) more districts namely Nashik (Maharashtra) and Sambalpur (Odisha), taking the count of implementing districts to eight (NPPCC, 2013).

The objectives of integration of AYUSH with existing health system are for promotion, prevention and control of NCDs through NPCDCS, to ensure early diagnosis of NCDs for management through life style and behavioral changes through the principle of AYUSH, to reduce drug dependency in chronic cases through AYUSH, Yoga practices, and life style changes, to provide an adjuvant therapy to reduce complications and associated symptoms and also support the development of database of NCDs to monitor and check NCD morbidity and mortality. The objective of this paper is to understand the perspectives of patients on AYUSH services provided at Life Style Diseases (LSD) clinics for managing non-communicable diseases through NPCDCS in selected states in India.

Methodology

The study was conducted in 6 States/Districts, with a total sample of 56 LSD clinics and 1790 beneficiaries. A descriptive study design was used. Information on all baseline laboratory investigation of registered patients were collected from the Case Report Form (CRF) maintained in the LSD clinics and were compared with investigation records of the enrolled patients at the time of evaluation. These LSD clinics were located at various CHCs in the district Bhilwara (Rajasthan- Ayurvedic LSD clinics), Surendranagar (Gujarat-Ayurvedic LSD clinics), Gaya (Bihar-Ayurvedic LSD clinics), Darjeeling (West Bengal-Homoeopathic LSD clinics), Krishna (Andhra Pradesh-Homoeopathic LSD clinics) and Lakhimpurkheri (Uttar Pradesh-Unani LSD clinics). A sample of 32 registered patients, from each of the 10 (7 in Darjeeling and 9 in Krishna) randomly selected LSD clinics in each District/State were collected. The activities performed from beginning till of March 2019 were also evaluated. After scrutiny of all schedules, total 1790 patients from all 6 districts (States) were analysed regarding counseling at the LSD clinics/health camps, change in their lifestyle and dietary practices, knowledge of Yoga, Aasanas and Pranayam and its practices, awareness about

risk factors of NCDs and sources of information, type of disease diagnosed at the LSD clinics, types of test undergone and improvements in their investigation parameters, opinion of patients having relief from the treatment, opinion about quality of services received from the LSD clinics and their suggestions for continuation and improvements in the functioning of LSD clinics.

Results and Findings

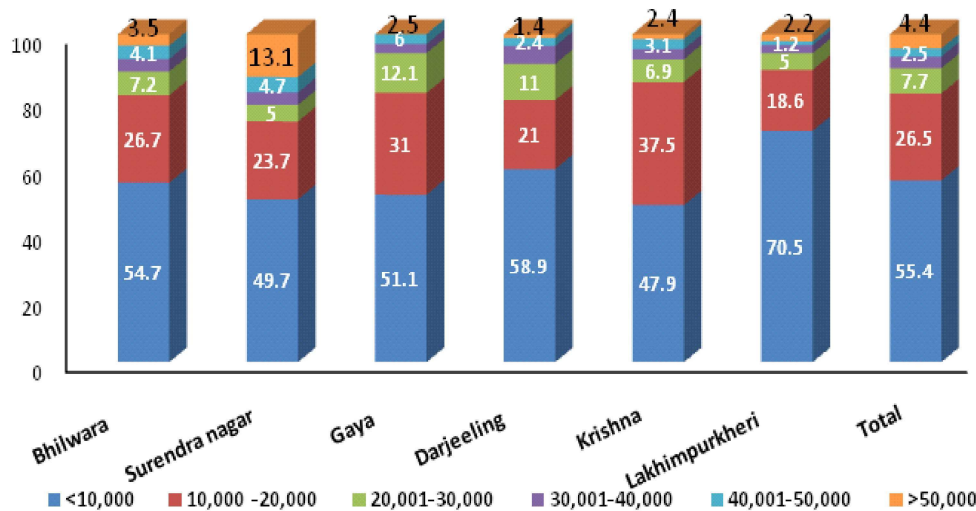
Demographic and socio cultural Profile of Patients: In all the six Districts/States, LSD clinics were established at CHCs/ Urban Health Centers/ Sub-Divisional Hospitals/District Hospitals in consultation with District/State health authorities.

Table 1: Distribution of patients attending LSD Clinics at CHCs according to their demographic and Socio-cultural profile

Demographic Profile	Districts/Type of Therapy						Total n(%)
	Ayurveda			Homoeopathy		Unani	
	Bhilwara n(%)	Surendra nagar n(%)	Gaya n(%)	Darjeeling n(%)	Krishna n(%)	Lakhimpurkheri n(%)	
Residence							
Urban/Town	53(16.4)	35 (10.9)	26(8.0)	52 (23.7)	36 (12.5)	55 (17.1)	257 (14.4)
Rural	265(83.6)	285 (89.1)	297 (92.0)	167 (76.3)	252(87.5)	267 (82.9)	1533 (85.6)
Gender							
Male	205(64.5)	180 (56.3)	208 (64.4)	99 (45.2)	142 (49.3)	189 (58.7)	1023 (57.2)
Female	113(35.5)	140 (43.8)	115 (35.6)	120 (54.8)	146 (50.7)	133 (41.3)	767 (42.8)
Age Group							
<30	3(0.9)	6 (1.9)	12 (3.7)	0(0.0)	3 (1.0)	20 (6.2)	44 (2.5)
30-39	38(1.9)	38(11.9)	52 (16.1)	33 (15.1)	29 (10.1)	70 (21.7)	260 (14.5)
40-49	86(27.0)	76(23.8)	94 (29.1)	63 (28.8)	90 (31.3)	92 (28.6)	501 (28.0)
50-59	111(34.9)	114(35.6)	121 (37.5)	70 (32.0)	83 (29.0)	81 (25.2)	580 (32.4)
60 and above	80(25.2)	86 (26.9)	44 (13.6)	53 (24.2)	83 (29.0)	59 (18.3)	405 (22.6)
Mean Age (Yrs.)	53.8	53.6	51.3	53.4	54.2	49.8	52.7
Total	318 (100)	320(100)	323(100)	219 (100)	288 (100)	322 (100)	1790(100)

Table 1 describes that total 1790 patients were interviewed from 6 LSD clinics in six districts. In the study sample, 80-90% patients were from rural areas (except Darjeeling-76%). Regarding gender, more than 50% were male except in Darjeeling and Krishna districts may be due to higher female education and empowerment but not necessarily due to the higher NCDs among females. As far as age is concerned, more than 60% patients were between age 30-59 years and about one fifth were 60 years and above.

Fig. 1: Percent distribution of Income level among patients attending LSD clinics



The income level of the patients indicates that majority of the patients (50% and more) were having income less than Rs 10,000/- per month as they may be from agricultural background. Higher percentage in Lakhimpur Kheri (70%) patients had less than Rs.10,000/- per month income, being one of the backward district in Uttar Pradesh. Further, about 27% were having income between Rs 10,000 to Rs 20,000/- indicating the utility of LSD clinics by poor and middle class patients in districts.

Laboratory Services and Satisfaction among Patients

Laboratory Services: Table 2 diagnosis of disease reveals that, 71% were diagnosed with the hypertension and 65% were diagnosed with high blood

sugar. This pattern remained same across districts. Since other tests for NCDs viz., HbA1C, Lipid Profile, Kidney Function Test (KFT), Liver Function Test (LFT) etc were not done at the CHCs, so no information was available at the LSD clinics.

Table 2: Distribution of patients according to Diseases Diagnosed at LSD Clinics/CHCs

Laboratory Services	Districts/Type of Therapy						Total n(%)
	Ayurveda			Homoeopathy		Unani	
	Bhilwara n(%)	Surendra nagar n(%)	Gaya n(%)	Darjeeling n(%)	Krishna n(%)	Lakhimpurkheri n(%)	
Diseases Diagnosed at lab							
Hypertension	210(68.9)	193(60.3)	204 (70.1)	137(87.3)	174(60.4)	208 (70.9)	1126 (71.3)
Diabetes	207(67.9)	201(62.8)	138 (47.4)	103(65.6)	167(58.0)	203 (69.0)	1019 (64.5)
Dyslipidemia	18 (8.7)	35(10.9)	6 (2.1)	0(0.0)	112(38.9)	5 (1.7)	176 (11.1)
Stroke	6(1.9)	1(0.3)	2 (0.7)	0(0.0)	3 (1.0)	1 (0.3)	13 (0.8)
Congenital Heart Disease	1(0.3)	1(0.3)	0(0.0)	5 (3.1)	2 (0.7)	0(0.0)	9 (0.6)
Coronary Artery Disease	0(0.0)	2(0.6)	1 (0.3)	1 (0.6)	3 (1.0)	0(0.0)	7 (0.4)
Rheumatic Heart Disease	0(0.0)	1(0.3)	1 (0.3)	0(0.0)	2 (0.7)	0(0.0)	4 (0.3)
Cerebro-vascular Disease/ Stroke	1(0.3)	0(0.0)	0(0.0)	0(0.0)	2 (0.7)	0(0.0)	3 (0.2)
Respiratory Diseases	0(0.0)	5(1.6)	0(0.0)	0(0.0)	15 (5.2)	1 (0.3)	21 (1.3)
Kidney Disease	0(0.0)	0(0.0)	0(0.0)	2 (1.2)	6 (2.1)	0(0.0)	8 (0.5)
Cancer	0(0.0)	0(0.0)	0(0.0)	1 (0.6)	0(0.0)	0(0.0)	1 (0.1)
Thyroid	0(0.0)	1(0.3)	2 (0.7)	8 (5.1)	18 (6.3)	1 (0.3)	30 (1.9)
Others	3(0.9)	30(9.4)	13 (4.5)	42 (26.8)	103(35.7)	9 (3.1)	200 (12.7)

The table 3 shows that, overall about 88% patients had their laboratory investigations and it was 100% in Krishna district. Overall 47% of screened patients reported same day at the LSD Clinic for blood test. This figure was far less in respect of Bhilwara, Surendranagar and Darjeeling districts. This was noticed that currently no registration was taking place at the Health/ Yoga camps, but all patients were directly coming to LSD clinic or referred by the allopathic doctor at the CHC.

Table 3: Distribution of patients according to laboratory services received and their satisfaction at LSD Clinics/CHCs

Laboratory Services	Districts/Type of Therapy						Total n= 1790 (%)
	Ayurveda			Homoeopathy		Unani	
	Bhilwara n(%)	Surendra nagar n(%)	Gaya n(%)	Darjeeling n(%)	Krishna n(%)	Lakhimpur kheri n(%)	
Laboratory Tests done during the treatment at the LSD clinic							
Yes	305(95.9)	245(76.6)	291 (90.0)	157(71.7)	288(100)	294 (91.3)	1580(88.3)
No	13(4.1)	75 (23.4)	32 (10.0)	62 (28.3)	0(0.0)	27 (8.4)	210 (11.7)
Gaps in registering at Screening /Outreach Camp, and reporting to Lab in days							
0	37 (11.6)	45 (14.1)	293 (90.7)	37 (16.9)	225(78.1)	200 (62.1)	837 (46.8)
1	23 (7.2)	30 (9.4)	4 (1.2)	23 (10.5)	38 (13.2)	3 (0.9)	121 (6.8)
2	17 (5.3)	9 (2.8)	4 (1.2)	17 (7.8)	2 (0.7)	8 (2.4)	57 (3.2)
3	28 (8.8)	7 (2.2)	1 (0.3)	32 (14.6)	1 (0.3)	3 (0.9)	72 (4.0)
4	10 (3.1)	5 (1.6)	0(0.0)	20 (9.1)	3 (1.0)	1 (0.3)	39 (2.2)
5	15 (4.7)	10 (3.2)	4 (1.2)	15 (6.8)	2 (0.7)	4 (1.2)	50 (2.8)
6	133(41.9)	105(32.8)	0(0.0)	0(0.0)	0(0.0)	0(0.0)	238 (13.3)
>6	35 (11.0)	33 (10.3)	3 (0.9)	65(29.7)	7 (2.4)	17 (5.3)	160 (8.8)
No Response	20 (6.4)	76(23.8)	14 (4.3)	10 (4.6)	10(3.5)	86 (26.7)	216 (12.1)
Average days	8.5	3.06	4.06	7.4	2.1	1.7	4.5

Regarding waiting period in getting test reports, overall 58% patients found their report same day, but it was less in Bhilwara and Surendranagar. This is to explain here that only random blood sugar test by Glucometer and Blood Pressure by the digital equipment was being done at the LSD clinics, so there is no possibility for delay in most of the cases. Probably due to this, overall, 73% patients were satisfied (70-80% across states) with the lab services and 20.6% were somewhat satisfied.

Perception of Quality of Treatment

The Table 4 describes that 20.4% patients were taking only AYUSH Treatment, 41% were taking Yoga and AYUSH medicines, 36% were taking AYUSH, Yoga and Allopathic medicines. There is a large variation in AYUSH treatment across districts with respect to types of LSD clinics. Patients were further asked if they were taking AYUSH, Yoga and Allopathic medicines, what has been effect of AYUSH medicines and Yoga on allopathic medicines. Our analysis revealed that overall 73% patients reduced dosages of allopathic medicine, 52% had reduced side effects of allopathic medicines, 24 % stopped allopathic medicine, 50% had faster recovery, and 22% said that no significant effect on reducing allopathic medicine and were continuing AYUSH medicine along with allopathic medicines. Such benefits of AYUSH medicines and Yoga on allopathic medicines were reported across districts irrespective of type of LSD clinics. The possible side effect of AYUSH medicines was also enquired and overall 9.0% patients said some side effect but type of side effect was not asked as only small percentage told about side effect. The least side effect was reported from Unani system of medicine, and in Ayurvedic and Homoeopathy almost similar responses were received.

Table 4: Distribution of patients according to type of treatment and effect of treatment for diagnosed diseases from the LSD clinic

Initiation of Treatment and its effect	Districts/Type of Therapy						Total n(%)
	Ayurveda			Homoeopathy		Unani	
	Bhilwara n(%)	Surendra nagar n(%)	Gaya n(%)	Darjeeling n(%)	Krishna n(%)	Lakhimpurkheri n(%)	
Type of Treatment currently taking							
Only AYUSH Medicine	22 (6.9)	41(12.8)	61 (18.9)	80 (36.5)	24 (8.3)	130(40.4)	365 (20.4)
AYUSH and Yoga	162 (37.4)	122(38.1)	177(54.8)	65 (29.7)	66 (22.9)	133(41.3)	725 (40.5)
AYUSH, Yoga and Allopathic Medicine	119 (50.9)	144(45)	65 (20.1)	74 (33.8)	198 (68.8)	38 (11.8)	638 (35.6)
AYUSH, Yoga and Home Remedies	9(2.8)	4(1.3)	2 (0.6)	0(0.0)	0(0.0)	18 (5.6)	33 (1.8)
Allopathic Medicines, AYUSH, Yoga and Home Remedies	6(1.9)	11(3.4)	2 (0.6)	0(0.0)	0(0.0)	0(0.0)	19 (1.1)
No Medicines /Only Yoga	0(0.0)	0(0.0)	16 (4.9)	0(0.0)	0(0.0)	0(0.0)	10 (0.6)
Total	318 (100)	320(100)	323 (100)	219 (100)	288(100)	322(100)	1790 (100)
If answer above is (AYUSH, Yoga and Allopathic Medicine), result effect of AYUSH and Yoga therapy?*							
Reduced Allopathic Medicine	89(74.8)	50(34.7)	57 (17.6)	41 (55.4)	195 (98.5)	34(89.5)	466 (73.0)

Stopped Allopathic Medicines	43(36.1)	8(5.6)	20 (6.2)	17 (2.3)	57 (28.8)	8 (21.1)	153 (24.0)
Reduced side-effects of Allopathic Medicine	48(40.3)	26(18.1)	26 (8.0)	9 (1.21)	190 (96.0)	30 (78.9)	329 (51.6)
Fast recovery	54(45.4)	42(29.2)	44 (13.6)	30 (40.5)	117 (59.1)	29 (76.3)	316 (49.5)
No significant effect and continuing with AYUSH medicines	4(3.4)	32(22.2)	17 (5.3)	23 (10.5)	65 (32.8)	2 (5.3)	143 (22.4)
Others (specify)	2(1.7)	0(0.0)	4 (1.2)	2 (1.0)	26 (13.1)	6 (15.8)	38(6.0)
Improvements in health condition after taking AYUSH medicine and Yoga therapy							
Not at all	35 (11.0)	129(40.3)	5 (1.5)	8 (3.7)	4 (1.4)	13 (4.0)	194 (10.8)
To some extent	56 (17.6)	37(11.6)	56 (17.3)	65 (29.7)	26 (9.0)	100(31.1)	340 (19.0)
To large extent	155 (48.7)	84(26.3)	206(63.8)	80 (36.5)	118 (41.0)	181(56.2)	824 (46.0)
To great extent	67 (21.1)	34(10.6)	43 (13.3)	50 (22.8)	139 (48.3)	25 (7.8)	358 (20.0)
Cannot say	5 (1.6)	36(11.2)	13 (4.1)	16 (7.3)	1 (0.3)	3 (0.9)	74 (4.1)

*Multiple response.

We asked patients about receiving proper advice and precautions from doctors and staff while taking AYUSH treatment, 88% patients agreed that they received. This was the highest (97%) from Unani System of medicine (Lakhimpurkheri district) and the least (53%) from Surendranagar district.

Regarding improvement in the current health condition as per the recent test report, around one third patients (29%) replied some what improvement, 58% reported improvements to large extent and 6% replied deterioration in their condition, while 3% said no improvements and 4%

were not sure about any improvements as they have started treatment recently (table 4). It is worth to mention that many a times medicines were not available and after six months, patients who belonged to rural population with low income were not given medicines as the CRF only records patients follow-up during six months. Due to denial of AYUSH medicines, many patients stopped medicines for diabetes and blood pressure and their condition deteriorated. It is required to continue medicines to patients beyond six months as an OPD patient and entry in CRF may not done, otherwise people will lose faith in LSD clinics and programme will be adversely affected.

Quality of Care at LSD Clinics

The table 5 describes certain aspects regarding quality of care. The LSD clinic were manned by two doctors, so 83% patients reported waiting time to see the doctor as up to 15 minutes and 12% reported waiting time 16-30 minutes. Similarly, 96% patients informed waiting time at the pharmacy counter up to 15 minutes and 4% took waiting between 16-30 minutes.

Table 5: Distribution of patients according to quality of services received at the LSD Clinic at CHCs

Quality of services at LSD clinic	Districts/Type of Therapy						Total n(%)
	Ayurveda			Homoeopathy		Unani	
	Bhilwara n(%)	Surendra nagar n(%)	Gaya n(%)	Darjeeling n(%)	Krishna n(%)	Lakhimpurkheri n(%)	
Doctors/ health providers treat with courtesy and respect							
Yes	283(89.0)	306(95.3)	318 (98.5)	199(90.9)	278(96.5)	295(91.6)	1679 (93.8)
To some extent	31(9.7)	9(2.8)	2 (0.6)	20(9.1)	2 (0.7)	14 (4.3)	78 (4.4)
No	4(1.3)	5(1.6)	1 (0.3)	0(0.0)	8 (2.8)	13 (4.0)	31 (1.7)
No Response	0(0.0)	0(0.0)	2 (0.6)	0(0.0)	0(0.0)	0(0.0)	2 (0.1)
Overall satisfaction level with the AYUSH Treatment							
Not at all	10 (3.1)	31(9.7)	12 (3.7)	27(12.3)	4 (1.4)	25 (7.8)	109 (6.1)
To some extent	60(19.5)	23(7.2)	31 (9.6)	47(21.8)	14 (4.9)	82 (25.5)	257 (14.4)
To large extent	248(77.4)	266(83.1)	280 (86.7)	144(65.8)	270(93.8)	215(66.8)	1424 (79.6)
Recommend any of your friend/ relative to take treatment from AYUSH Clinic infuture							
Yes	316 (99.4)	318(99.4)	315 (97.5)	211(96.4)	285(99.0)	293(91.0)	1738 (97.1)
No	2(0.6)	2(0.6)	8(2.5)	8(3.6)	3 (1.0)	29 (9.0)	52 (2.9)
Total	318(100)	320(100)	323 (100)	219(100.0)	288 (100)	322 (100)	1790 (100)

Since no proper space was given to LSD clinics, patients had to wait outside the LSD clinic in corridors without even proper benches or chairs for sitting. Quite high (76%) patients rated sitting arrangements as very good/good and 16% percent as average and 4.7% rated as not good. Regarding satisfaction from the behavior of staff at the LSD clinics, 94% patients rated as large/some extent satisfaction and only 5% were not satisfied. Majority of patients (94%) told that doctors treated them with courtesy and respect. Regarding overall satisfaction from the AYUSH treatment, 94% were satisfied and just 6% were unsatisfied and lastly 97% patients said that they will recommend to their friend/relatives for taking treatment from the LSD clinics.

Discussion:

AYUSH treatment has an increasing demand for formal health care delivery system in our country. In our study it was found that among the patients who are taking AYUSH treatments, more than 85% of them are from rural areas in all the states. It may be because the LSD clinics are located at rural areas. The analysis again reveals that about highest percent of the patients were belong to 50-59 age group (32.4%) followed by 40-49 age group (28%) and the average age found as 52.7 years. It may be because of the NCDs are comparatively higher in these age groups. A study conducted in Goa on the utilization of AYUSH services in PHCs, found that more than half of the patients (57.4%) were belong to 31 - 60 year age group (Elvira&Hemangini, 2017). One fourth of the patients were illiterates, 29 percent were completed junior high school. More than half of the patient's (55.4%) monthly income was reported as less than Rs. 10,000/-. It shows that majority of the AYUSH service users were belong to lower income group and economically poor background. Similar kind of observation has been found in another study conducted at rural India (Chandra & Patwardhan, 2018). A study based on WHO-SAGE survey realize that those individuals with lower socio-economic status and those living in rural areas were more likely to use traditional system of medicine (Oyebode et al, 2016). Another study based on NSSO found that AYUSH care was less observed among

middle monthly per-capita consumer expenditure quantile households, while it was higher among those at the end of the monthly per-capita consumer expenditure quantile (Rudra et al, 2017). Among the patients majority are taking treatment for life style diseases like BP and blood sugar. We found that 71% of the patients were diagnosed with the hypertension and 65% were diagnosed with high blood sugar followed by Dyslipidemia (11.1%). It is because, only random blood sugar test by Glucometer and Blood Pressure by the digital equipment were the only tests being done at the LSD clinics.

About one third patients (29%) reported that somewhat improvement, 58% reported improvements to large extent and 6% replied deterioration in their condition after the taking AYUSH treatment. It corroborates the study conducted in Ayurvedic College, Gujarat, as all the signs and symptoms were reduced by more than 80 percent, clinical sign of the disease was reduced by 93 percent and dose of steroids was reduced by 87 percent after the AYUSH treatment (Patel et al, 2010).

The public rural health care network of Primary Health Centre (PHC) and community Health Centres (CHC) are grossly deficit as per the norms given by WHO. Amidst of all these, the satisfaction from the behavior of staff at the LSD clinics, 98% patients rated as large/some extent behavior was good and treat with courtesy and respect. Regarding overall satisfaction from the AYUSH treatment, 94% were satisfied and just 6% were unsatisfied and lastly 97% patients said that they will recommend to their friend/relatives for taking AYUSH treatment from the LSD clinic. A study conducted at Puducherry reported that more than 98 percent of the patents were agreed that the behavior of doctor was very good and 99 percent reported that doctors were listening the patients carefully without looking to computer or notes and 95 percent were very much satisfied with the overall AYUSH treatment (Boovaragasamy& Narayanan, 2019).Almost similar findings were corroborated with another study carried out at Bangladesh (Md. Nabi et al., 2015).

Conclusions

The findings describe that LSD clinics are very popular and effective in treatment of NCDs. In all the districts, good improvements among diabetes and BP patients were found based upon initial test values at the time of treatment and at the time of evaluation. More than 85 percent of the patients were reported that their health status has been improved after taking AYUSH and Yoga treatment. Lack of minimal blood test facility, irregular supply of medicines, and not giving medicines after six months were eroding people's trust in the LSD clinics. Drug supply must be automated with online Drug Inventory Management System. There is urgent need to provide facilities of blood test like Fasting and PP Blood Sugar, HbA1C, Lipid Profile, Thyroid Test, LFT, KFT etc. either at CHC or through empaneled accredited Labs. In spite of several limitations, patients were highly satisfied with their AYUSH treatment and behavior of doctors and were also willing to recommend the LSD clinics to their friends and family members.

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