

Impact of homoeopathy along with yoga as an integrated pilot project with the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke: A cross-sectional study

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Abstract

Background: There is a growing concern about the increasing burden of non-communicable diseases (NCDs) and their risk factors globally. **Objectives:** This study assesses the impact of the integration of Ayush (homoeopathy along with yoga) in the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke at the level of patients and conventional physicians. **Methods:** This cross-sectional study was carried out on the participants already enrolled for the treatment of NCDs at 22 Ayush-Lifestyle Disorders clinics in four districts across India. Participants of any gender, aged 30 years or older, were included. A structured questionnaire covering knowledge, attitude and practice (KAP) regarding NCDs was filled out by the participants. Pearson's correlation coefficient was applied to measure the relationship between KAP scores. **Results:** 1923 participants took part in the study. 68.7% ($n = 1322$) agreed with the benefits of homoeopathic medicine to a large extent, 29.7% ($n = 917$) agreed to some extent, and 1.5% ($n = 29$) did not agree about the merits of homoeopathy. 61.8% ($n = 1189$) participants noticed considerable changes in their health condition after taking homoeopathy and yoga, while 36.2% ($n = 696$) felt the change in health to some extent, and the remaining 1.1% ($n = 22$) did not notice any change. The correlation revealed significant positive linear correlations between knowledge-attitude ($r = 0.49, P < 0.001$), knowledge-practice ($r = 0.49, P < 0.001$) and attitude-practice ($r = 0.52, P < 0.001$). **Conclusion:** The findings indicate a successful integrated approach that can be adopted in providing healthcare to patients suffering from NCDs.

Keywords: Homoeopathy, India, Non-communicable diseases, NPCDCS, Yoga

INTRODUCTION

Over the last two decades, there has been a paradigm shift in the disease trends in India from communicable to non-communicable diseases (NCDs).^[1] Cardiovascular diseases, diabetes, chronic respiratory diseases, mental health and neurological disorders, cancer, musculoskeletal disorders and chronic kidney disease are prevalent NCDs contributing to the rising disease burden.^[1] The World Health Organization (WHO) reported 41 million deaths (71% of total deaths) due to NCDs globally in 2018, and 60% of all deaths were contributed by India.^[2,3] These NCDs are caused by a combination

of biological, environmental, behavioural (tobacco use, physical inactivity, an unhealthy diet and the harmful use of alcohol), and hereditary factors that affect people of all ages, geographical areas and nations.^[2] NCD management interventions are essential for achieving the global target of

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a 25% relative reduction in the risk of premature mortality from NCDs by 2025 and the Sustainable Development Goals target of a one-third reduction in premature deaths from NCDs by 2030.^[4]

Focusing on reducing risk factors along with therapeutic goals is a vital step in controlling NCDs. WHO's survey report for 2019 assessing the national capacity for the prevention and control of NCDs reflected the need for detection, treatment and prioritisation in every country especially in primary healthcare.^[5]

Since 2010, the Government of India (GoI), through the Ministry of Health and Family Welfare, has implemented the National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS), with the goals of risk reduction, early detection and treatment of NCDs.^[6] Owing to medical pluralism in India with established Ayush systems (Ayurveda, Unani, Yoga and Naturopathy, Sowa Rigpa, Siddha and Homoeopathy), a considerable number of people utilise homoeopathic healthcare services.^[7] Homoeopathy has become deeply rooted in India's public health provision—it has the third-largest government-supported infrastructure after Ayurvedic and modern medicine.^[8]

Teut *et al.*^[9] also found in their study that homoeopathic medical therapy may play a beneficial role in the long-term care of older adults with chronic diseases, wherein the severity of their disease decreased markedly in the first 3 months of homoeopathic treatment. Elizabeth *et al.*,^[10] with their results from an observational study, also add to the evidence that patients with long-term conditions, when treated with individualised homoeopathic medicines, improve their presenting symptoms and well-being. Homoeopathic physicians can play an important role in the prevention and control of NCDs through primary healthcare networks, which can be evidenced by research in homoeopathy on NCDs.^[11-17] Yoga, a non-pharmacological intervention as an integrated mind-body practice based on ancient Vedic philosophy from India, is increasingly recognised both in India and globally as a system for promoting health and well-being.^[18] WHO South East Region recommends yoga as a new strategy for improving health on a three-dimensional plane in primary healthcare.^[19] Research evidence suggests that yoga practices help to prevent and treat various physical and mental illnesses and improve the overall quality of life.^[20-23] Other health professionals also recommend the involvement of Ayush professionals in the prevention of the rising epidemic of NCDs.^[24] Integration with the Ayush is also one of the mandates of the NPCDCS program. The Central Council for Research in Homeopathy (CCRH), in collaboration with the Directorate General of Health Services and the Ministry of Health and Family Welfare, implemented the integrated NPCDCS-Ayush (Homoeopathy along with Yoga) pilot project from September 2015 to April 2021.^[25] The objectives of the integrated project were health promotion through behaviour change; disease prevention through early diagnosis of NCDs; reduction in NCD burden and risk factors;

and early management of NCDs through homoeopathic medicinal treatment as an add-on to standard care or as a standalone. This cross-sectional study aims to determine the impact of this pilot project through a knowledge, attitude and practice (KAP) survey among patients and conventional physicians.

METHODS

Study setting, participants and design

This multicentre cross-sectional study was carried out for a period of 3 months from July 2019 to September 2019 at Ayush-Lifestyle Disorders Clinics (ALDCs) set up under the NPCDCS-Ayush integration project. ALDCs were set up at different community health centres, area hospitals, district hospitals, rural hospitals and block primary health centres under the state health facilities in the four districts across India, namely, Krishna, Andhra Pradesh ($n = 9$), Darjeeling, West Bengal ($n = 6$), Sambalpur, Odisha ($n = 3$) and Nashik, Maharashtra ($n = 3$) (Table S1). The participants who suffered from NCDs and were already enrolled in their treatment for at least 6 months and gave informed written consent were included. Research staff included institutionally qualified homoeopathic physicians with a degree to practice homoeopathy, yoga instructors with a degree or diploma in yoga, multi-task workers, and office assistants at each set up for the screening of NCDs, health awareness, health lectures regarding NCDs for behavioural modifications to avoid alcohol, to stop smoking, to stop chewing tobacco, to undertake physical activity, healthy dietary habits and yoga classes for preventive and promotive health at the community level, and at ALDC along with homoeopathic treatment to patients for a continuum of care. The homoeopathic physicians and yoga volunteers were trained prior to the initiation of the study for data collection. The conventional physicians who were heading and instrumental at each health centre where ALDC was set up were also involved to know about the impact of the project. The study protocol and questionnaire were approved by the Institutional Ethical Committee of CCRH in the 22nd ethical committee meeting held on May 27, 2019 (Ref No. 1-3/2019-20/CCRH/Tech./22nd EC). All study participants gave informed written consent.

Data collection

The research staff from each ALDC were responsible for collecting the information from the participants. The survey was a 47-item structured, validated questionnaire that captured the socio-demographic profile, knowledge or awareness about NCDs and their risk factors (13 questions), attitude towards NCDs (15 questions), practice, motivation or improvement (14 questions), and general opinion about this integrated project (5 questions) for qualitative and quantitative analysis about the impact of the project. Each question in the KAP is based on a Likert scale from 1 to 3, i.e. "Not at all," "Yes, to some extent," and "Yes, to a large extent." Out of 47 questions, one question captured overall health after association with this project on a four-point scale from 'poor' to 'excellent'. The questionnaire

was filled out by the participants themselves, although research staff were also trained to help the participants who found it difficult to fill out the questionnaire.

Further, an 11-item questionnaire was also filled out by the conventional physicians for their views about the project at each ALDC. It consisted of two sections, viz. 10 questions related to their perspective on the performance of homoeopathic physicians and the overall treatment effect through homoeopathic intervention, and one question related to their awareness about homoeopathy in the treatment of identified NCDs.

Sample size

A purposive sample was used to recruit participants, conveniently 100 from each ALDC. However, information from a sample of 1923 participants could be collected and included in the analysis. Further, 25 conventional physicians were interviewed to know their perspectives about the impact of the pilot project.

Statistical analysis

Descriptive data are presented as frequencies and percentages for socio-demographic information and the individual items of the KAP questionnaire. A one-way analysis of variance was applied to assess the mean KAP scores in relation to the socio-demographic characteristics of participants. Pearson’s correlation coefficient was applied to measure the relationship between the mean KAP scores. Bar graphs were applied to show the changes in behaviour and beliefs among participants. All analysis was conducted using IBM SPSS version 20. *P* < 0.05 was considered significant.

RESULTS

Socio-demographic profile

A total of 1923 participants were approached for the study, and all of them responded to it. Out of those, participants aged 30 years and older were included in this study, which comprised 57% females and 43% males. Rural participants were 66.7% compared to the 33.3% urban population. 11.6% of the participants (*n* = 224) had an office job, 56.2% were homemakers or retired persons, 28.7% were farmers and the rest 3.5% belonged to business or were unemployed. 3.8% of participants had a low body mass index (BMI) (<18.5 kg/m²), 34.8% had a normal BMI (18.5–24.99 kg/m²), and the remaining 61.4% had a BMI above the normal limits (≥25 kg/m²), with 38.6% being overweight (25–29.99 kg/m²) and 22.9% being obese (≥30 kg/m²), respectively. 98.8% of patients were taking homoeopathy for their treatment. These patients also reported to be taking allopathy (33.9%), yoga (13.5%), yoga and allopathy (42.5%), ayurveda and allopathy (0.1%), ayurveda (0.2%), ayurveda and yoga (0.2%), ayurveda and yoga and allopathy (0.3%) and unani and yoga (0.1%). 1.2% of patients practiced only yoga. The socio-demographic details identified for the respondents are presented in Table 1.

Table 1: Socio-demographic profile of the participants (n=1923)

Socio-demographic profile	Total participants (1923)
Age (in years)	53.72±10.99
30–39	187 (9.7)
40–49	503 (26.2)
50–59	581 (30.2)
60–69	487 (25.3)
≥70	165 (8.6)
BMI	26.57±4.93
Under weight (<18 kg/m ²)	74 (3.8)
Normal weight (18.5–24.99 kg/m ²)	668 (34.8)
Overweight (25.00–29.99 kg/m ²)	741 (38.5)
Obesity (30.00–≥40.00 kg/m ²)	440 (22.9)
Gender	
Male	826 (43)
Female	1097 (57)
Place	
Urban	641 (33.3)
Rural	1282 (66.7)
Marital Status	
Married	1794 (93.3)
Unmarried	15 (0.8)
Divorcee/Widow	114 (5.9)
Education	
Illiterate	383 (19.9)
Up to class 10 th	1080 (56.2)
Up to class 12 th	294 (15.3)
Graduate	139 (7.2)
Post-graduate	27 (1.4)
Occupation	
Office job	224 (11.6)
Homemaker/Retired person	1080 (56.2)
Farmer	551 (28.7)
Others (business, unemployed etc.)	68 (3.5)
NCDs Suffered	
DM	406 (21.1)
HTN	815 (42.3)
Obesity	20 (1.0)
CRD	28 (1.4)
Others (dyslipidemia and CAD)	8 (0.4)
DM+other NCDs (HTN, obesity, CRD, dyslipidemia, CAD and cancer)	601 (31.2)
HTN+other NCDs (obesity, CRD and dyslipidemia)	45 (2.3)
Types of intervention (s) currently taken	
Homoeopathy	153 (8.0)
Yoga	24 (1.2)
Allopathy	1 (0.1)
Homoeopathy+Allopathy	651 (33.9)
Homoeopathy+	269 (13.9)
Other Ayush modalities*	
Homoeopathy+Allopathy +Other Ayush modalities*	825 (42.9)

*Data in table are presented as mean±SD and *n* (%). HTN: Hypertension, DM: Diabetes mellitus, CAD: Coronary artery disease, CRD: Chronic respiratory disease, *other Ayush modalities: Yoga, Ayurveda and Unani

Awareness about NCDs and their risk factors

33.6% ($n = 646$) of the total participants were aware of the NCDs to a large extent, 61.3% were aware of them to some extent, and 5% did not know anything about the NCDs. There were 17.7% smokers and 10.4% alcohol consumers. 3.2% did not agree that the diet should be balanced, but 96.8% of participants agreed that the diet should be balanced with protein, fat and carbohydrates. A total of 1847 (96%) participants agreed that a sedentary lifestyle is one of the causes of NCDs and that it has an impact on health. 98.5% of participants agreed with the benefits of homoeopathic medicines, while 1.5% did not agree with the benefits of these medicines. 96.8% of participants agreed that yoga helps to prevent NCDs and promotes health [Table 2].

Attitude of participants towards prevention and control of NCDs

19.6% ($n = 376$) of participants used to take a balanced diet to a large extent, while 71.6% followed a balanced diet to some extent, and 8.9% did not take a balanced diet at all. 88.7% of participants agreed to a large extent that they were getting proper treatment from the Ayush (homoeopathy) physicians, and 89.9% of participants believed to a large extent that the homoeopathic treatment was administered on a timely basis during their follow-up visits under the project. As per the responses, the homoeopathic medicines given under this project were found to be effective in 86.7% of participants, while 13.2% agreed that they were effective to some extent and 0.1% stated that the medicines were not at all effective for their conditions. 99.8% of participants agreed that they were given proper advice and precautions with homoeopathic treatment. Yoga instructors were clear in giving instructions and demonstrating during yoga classes, as stated by 96.1% of participants [Table 3].

Practice and change in behaviour and belief among participants

Based on the answers received from the participants in response to the questionnaire, it is evident that the counselling

and homoeopathic treatment given by the study team led to a positive change in their behaviour and beliefs. And the participants became more concerned and cautious about NCDs after screening in this integrated project, wherein change was visible in both groups, viz., in 100% ($n = 97$) of those who were not aware of NCDs previously as well as in 93.9% ($n = 1714$) of those who were aware of the NCDs [Figure 1].

Binary variables were created for the categories “Not at all; Yes, to some extent; and Yes, to a large extent” into “Yes” and “No.” The graphical presentation of the change in behaviour among participants towards various risk factors of NCDs such as tobacco, alcohol, sedentary lifestyle and diet is given in Figure 2.

Participants were asked questions regarding the benefits of homoeopathy, their faith in homoeopathy, and their beliefs about yoga preventing NCDs. A change in their belief was found after motivation [Figure 3].

Further, after being treated with homoeopathic medicines along with yoga and lifestyle changes, 55.3% (1063/1923) participants noted improvement in their health condition to a large extent, while 44.5% noted improvement only to some extent. 35% of participants started attending check-ups and treatment to some extent, and 65% to a large extent regularly in the ALDCs. 48.1% of participants felt energetic after doing yoga to some extent, 30.1% felt this way to a large extent, and 20.8% did not feel energetic at all after doing yoga. Although 49% of participants felt that their sleep, mood, anxiety and behaviour patterns improved after attending yoga classes to a large extent, 36.1% believed these have improved to some extent, while 11.1% felt no change at all [Table 4].

Furthermore, 61.8% ($n = 1189$) participants noticed changes to a large extent in their health condition after taking Homoeopathy and yoga, while 36.2% felt the change in health to some extent, and the remaining 1.1% did not notice any change in their health after taking the Homoeopathy and yoga treatment.

Table 2: Knowledge/Awareness of the participants

S. No.	Knowledge/Awareness	Not at all	Yes, to some extent	Yes, to large extent	Not applicable
1.	Are you aware about NCDs (diabetes, hypertension, cancer, chronic respiratory diseases)?	98 (5)	1179 (61.3)	646 (33.6)	
2.	Do you smoke?	1583 (82.3)	281 (14.6)	59 (3.1)	
3.	Do you agree smoking affect your own health?	56 (2.9)	626 (32.6)	1210 (62.9)	31 (1.6)
4.	Do you take alcohol?	1724 (89.6)	174 (9.1)	25 (1.3)	
5.	Do you agree alcohol affect your own health?	84 (4.4)	644 (33.5)	1168 (60.7)	27 (1.4)
6.	Do you agree low fiber diet affect your health?	61 (3.2)	1462 (76)	400 (20.8)	
7.	Do you agree low protein diet affect your health?	99 (5.1)	1388 (72.2)	436 (22.7)	
8.	Do you agree high carbohydrate diet affect your health?	95 (4.9)	1231 (64)	597 (31)	
9.	Do you agree that the diet should be balanced with protein, fat, and carbohydrate?	62 (3.2)	1075 (55.9)	786 (40.9)	
10.	Do you agree sedentary lifestyle is one of the causes for NCDs and affect your health?	76 (4)	874 (45.4)	973 (50.6)	
11.	Do you agree with the benefits of Homeopathic medicine?	29 (1.5)	572 (29.7)	1322 (68.7)	
12.	Do you have faith in Homeopathic system of medicine?	5 (0.3)	465 (24.2)	1453 (75.6)	
13.	Do you agree yoga helps to prevent NCDs and promotes health?	61 (3.2)	917 (47.7)	945 (49.1)	

*Data in the table are presented as n (%). NCDs: Non-communicable diseases

Table 3: Attitude towards prevention and control of NCDs

S. No.	Self-Attitude	Not at all	Yes, to some extent	Yes, to large extent
1.	Do you have balanced diet?	171 (8.9)	1376 (71.6)	376 (19.6)
2.	Would you like more information about NCDs?	71 (3.7)	882 (45.9)	970 (50.4)
3.	Were any banner/IEC materials about NCDs and their risk factors displayed in the LSD beneficial to you?	79 (4.1)	817 (42.5)	1027 (53.4)
4.	Did you receive IEC materials for awareness about the integrated NPCDCS program?	203 (10.6)	710 (36.9)	1010 (52.5)
5.	Are you getting proper treatment from the physicians under NPCDCS Program?	6 (0.3)	212 (11)	1705 (88.7)
6.	Are you getting all the medicines timely on your follow up visits under NPCDCS Program?	4 (0.2)	191 (9.9)	1728 (89.9)
7.	Did the doctors made aware of your disease condition?	2 (0.1)	196 (10.2)	1725 (89.7)
8.	Are medicines given under this program effective?	2 (0.1)	254 (13.2)	1667 (86.7)
9.	During the treatment, did doctors/health providers treat you with courtesy and respect?	150 (7.8)	1773 (92.2)	
10.	During the treatment, did doctors/health providers listen carefully to you?	155 (8.1)	1768 (91.9)	
11.	Were you given clear understanding of what to expect during treatment?	292 (15.2)	1631 (84.8)	
12.	Were you given proper advice and precautions to be taken while taking treatment?	3 (0.2)	223 (11.6)	1697 (88.2)
13.	Were your complaints recorded satisfactorily by the attending doctor?	3 (0.2)	176 (9.2)	1744 (90.7)
14.	Were required lab tests done in the LSD clinic only or you were advised to get those done from outside?	138 (7.2)	1034 (53.8)	751 (39.1)
15.	Is the yoga instructor clear in giving instructions and demonstrating during yoga class?	171 (3.9)	507 (27.8)	1245 (68.3)

*Data in table are presented as n (%). NCDs: Non-communicable diseases, LSD: Lifestyle disorder

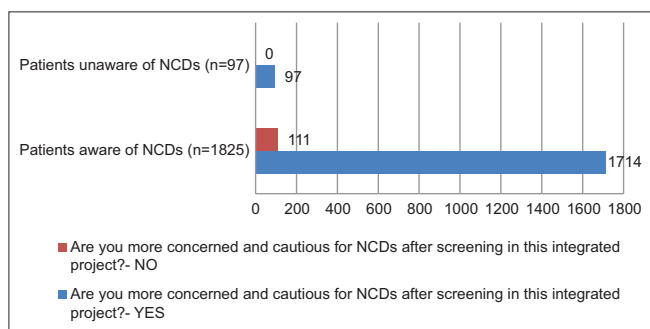


Figure 1: Awareness among participants about non-communicable diseases after motivation

Participants' general opinion about the NPCDCS-Ayush integration project

All the participants of this study agreed that the NPCDCS-Ayush integration project was a successful initiative for the management of their NCDs, as 46.9% (901/1923) participants rated their overall health to be excellent, 50.4% rated good, 2.6% rated fair and 0.2% participants rated their overall health to be poor after being associated with this project [Table 5].

Association of socio-demographic characteristics and mean KAP scores of participants

As shown in Table 6, all scores for KAP were statistically different across gender, place, education, district and occupation. Out of the total overweight participants (n = 741, 38.5%) and total obese participants (n = 440,

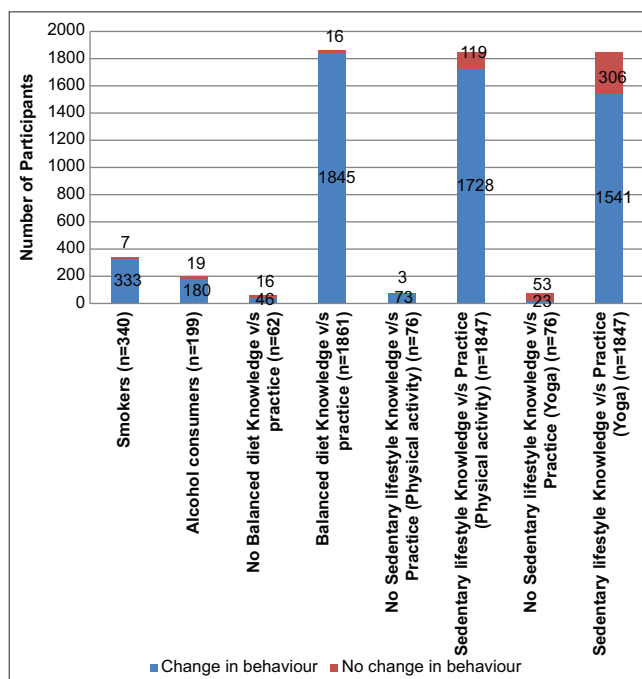


Figure 2: Change in behaviour among participants towards risk factor reduction of non-communicable diseases

22.9%), 42.12% overweight and 28.08% obese participants belong to urban settings, while 36.74% overweight and 20.28% obese participants belong to rural settings. In terms of KAP regarding NCDs, participants from urban settings

had a higher KAP (knowledge score: 30.01, attitude score: 41.07, practice score: 34.96) than those from rural settings (knowledge score: 28.75, attitude score: 39.96, practice score: 33.96) ($P < 0.001$). Although different age groups showed a statistically significant difference in attitude scores, there was no difference in knowledge or practice scores. Assessments showed that knowledge scores were not statistically different at the 5% level for marital status, and attitude scores were not significantly different for BMI.

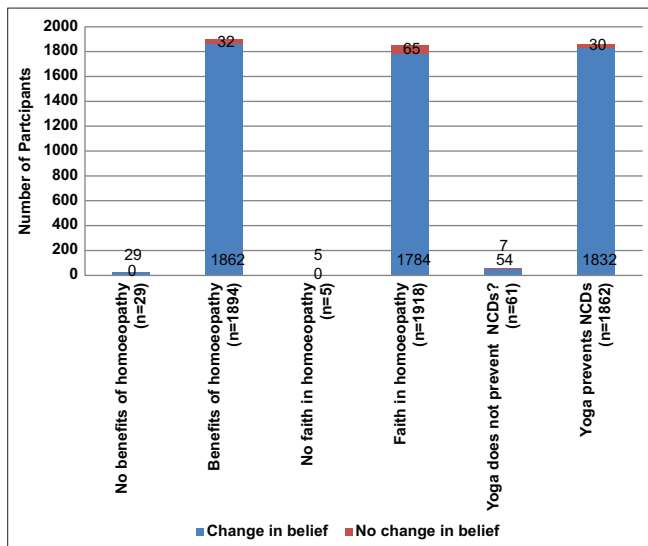


Figure 3: Change in belief among non-communicable disease participants towards homoeopathy and yoga

Correlation between KAP of participants

Correlations were interpreted using the following criteria as presented in Table 7, wherein 0–0.25 = Weak correlation, 0.25–0.5 = Fair correlation, 0.5–0.75 = Good correlation and greater than 0.75 = Excellent correlation. The correlation revealed significant positive linear correlations between knowledge-attitude ($r = 0.49, P < 0.001$), knowledge-practice ($r = 0.49, P < 0.001$) and attitude-practice ($r = 0.52, P < 0.001$). The result reaffirms the relationship between the KAP of participants in relation to NCDs.

The perspectives of conventional physicians

Perspective about healthcare delivery by Ayush staff working under the NPCDCS-Ayush integration project

The conventional physicians heading each health center reported satisfaction with the Ayush staff working in the integration project (yes, to a large extent, 84%; yes, to some extent, 16%) and also reported that homoeopathic practitioners can be a great support in the management of NCDs [Table 8].

Perspective about the usefulness of Ayush therapies utilised in the NPCDCS-Ayush integration project for the management of NCDs

In this qualitative approach, out of 25 conventional physicians who were asked about whether there was any tapering of modern medicines after the introduction of Ayush therapy, 92% agreed that the modern medicines could be tapered after Ayush therapy (yes to some extent: 68%; yes to a large extent: 24%), while 8% believed that there was no tapering of modern

Table 4: Practice of NCD management through motivation and Homoeopathic treatment

S. No.	Practice/Self-motivation	Not at all	Yes, to some extent	Yes, to large extent	Not applicable
1.	Do you feel the improvement in your health condition?	4 (0.2)	856 (44.5)	1063 (55.3)	
2.	Whether the motivation for behavioral change in this program helped you to stop smoking?	7 (2.1)	161 (47.4)	172 (50.5)	
3.	Whether the motivation for behavioral change in this program helped you to stop drinking?	19 (9.5)	120 (60.3)	60 (30.2)	
4.	Are you more concerned and cautious for your NCD after screening in this program?	111 (5.8)	709 (36.9)	1103 (57.4)	
5.	Do you come for checkup and treatment regularly?	2 (0.1)	670 (34.8)	1251 (65.1)	
6.	Do you follow good food habits and balanced meal?	32 (1.7)	893 (46.4)	998 (51.9)	
7.	Do you undergo physical activities?	122 (6.3)	1150 (59.8)	651 (33.9)	
8.	Do you practice yoga daily?	359 (18.7)	952 (49.5)	612 (31.8)	
9.	Do you feel energetic after doing yoga?	400 (20.8)	925 (48.1)	579 (30.1)	19 (1)
10.	Do you think homoeopathic treatment has helped you in improving your health condition?	32 (1.7)	697 (36.2)	1194 (62.1)	
11.	Does your sleep/mood/anxiety/behavioral pattern improve after attending Yoga classes?	213 (11.1)	695 (36.1)	942 (49)	73 (3.8)
12.	Have you noticed any changes in your health condition after taking Ayush (Homoeopathy) and yoga?	22 (1.1)	696 (36.2)	1189 (61.8)	16 (0.8)
13.	Do you feel to cut down your modern treatment after taking Ayush (Homoeopathy) along with Yoga?	65 (3.4)	748 (38.9)	1041 (54.1)	69 (3.6)
14.	How effective is the role of diet, lifestyle, and yoga in the management of non-communicable diseases?	37 (1.9)	873 (45.4)	1013 (52.7)	

*Data in table are presented as n (%)

Table 5: Participants' general opinion

S. No.	General	Not at all/Poor	Yes, to some extent/Fair	Yes, to large extent/Good	Successful/Excellent
1	Would you recommend this hospital/CHC to your friends and family?	26 (1.4)	341 (17.7)	1556 (80.9)	
2	Do you want this project to be continued further?	114 (5.9)	1809 (94.1)		
3	What is your opinion about the success of the NPCDCS Program for the management of non communicable diseases?				1923 (100)
4	For what extent, the motivation for behavioural change (diet, lifestyle and yoga) in this program helped you?	58 (0.1)	944 (50.6)	921 (49.3)	
5	How would you rate your overall health after association with this program?	3 (0.2)	50 (2.6)	969 (50.4)	901 (46.9)

*Data in table are presented as n (%)

Table 6: Association between the socio-demographic characteristic of participants and their mean KAP scores

Socio-demographic profile	Total (n=1923)	Knowledge score			Self-attitude score			Practice score		
		Mean	SD	P	Mean	SD	P	Mean	SD	P
Gender										
Male	826 (43)	29.6	3.65	<0.001	40.66	3.19	<0.001	34.68	5.00	0.005
Female	1097 (57)	28.85	3.77		40.08	3.68		34.01	5.24	
Age	53.72±11									
30-39	187 (9.7)	29.51	3.44	0.186	40.61	3.23	0.001	34.21	5.14	0.116
40-49	503 (26.2)	29.26	3.74		40.60	3.30		34.69	5.11	
50-59	581 (30.2)	29.20	3.81		40.49	3.49		34.42	5.16	
60-69	487 (25.3)	28.85	3.69		39.78	3.73		33.92	5.07	
≥70	165 (8.6)	29.41	3.91		40.24	3.41		33.81	5.38	
BMI	26.57±4.93									
Under/Normal weight (≤18.5-24.99 kg/m ²)	742 (38.6)	29.48	3.53	<0.001	40.33	3.45	0.701	34.86	5.23	<0.001
Overweight (25.00-29.99 kg/m ²)	741 (38.5)	29.22	3.86		40.40	3.39		34.23	5.13	
Obesity (30.00-≥40.00 kg/m ²)	440 (22.9)	28.58	3.85		40.22	3.72		33.44	4.95	
Place										
Urban	641 (33.3)	30.01	3.88	<0.001	41.07	3.17	<0.001	34.96	5.05	<0.001
Rural	1282 (66.7)	28.75	3.61		39.96	3.59		33.96	5.17	
Marital Status										
Married	1794 (93.3)	29.18	3.75	0.131	40.42	3.47	<0.001	34.41	5.09	0.001
Unmarried	15 (0.8)	30.87	2.94		40.00	3.31		36.13	5.91	
Divorcee/Widow	114 (5.9)	28.82	3.69		38.89	3.48		32.18	5.48	
Education										
Illiterate	383 (19.9)	28.25	4.08	<0.001	39.46	4.26	<0.001	33.74	5.28	<0.001
Up to class 10 th	1080 (56.2)	29.16	3.59		40.35	3.20		34.26	5.07	
Up to class 12 th	294 (15.3)	29.21	3.53		40.49	3.36		33.87	5.09	
Graduate	139 (7.2)	30.80	3.41		41.58	2.99		36.01	4.98	
Post-graduate	27 (1.4)	33.81	2.43		43.67	1.39		38.96	3.86	
Occupation										
Office job	224 (11.6)	30.46	3.75	<0.001	40.66	3.79	0.009	35.24	5.71	<0.001
Homemaker/Retired person	1080 (56.2)	28.89	3.91		40.11	3.57		34.12	5.19	
Farmer	551 (28.7)	29.17	3.38		40.55	3.24		33.91	4.83	
Others (business, unemployed etc.)	68 (3.5)	29.41	2.88		41.04	2.78		37.03	3.98	
Districts										
Krishna	1017 (52.9)	28.76	4.13	<0.001	40.52	3.58	<0.001	33.13	4.90	<0.001
Darjeeling	425 (22.1)	29.11	3.35		40.29	2.70		37.07	3.13	
Sambalpur	231 (12.0)	30.97	1.98		41.72	3.18		37.92	3.23	
Nashik	250 (13.0)	29.32	3.48		38.35	3.73		30.94	6.17	

*Data in table are presented as mean±SD and n (%). KAP: Knowledge, attitude, and practice

medicines after the introduction of Ayush therapy. 92% of conventional physicians believed that the Ayush system could play a vital role in the prevention of NCDs to a large extent,

and the remaining 8% of conventional physicians believed this to some extent. 92% believed that homoeopathic medicines have no side effects at all, while 8% believed that they have

side effects to some extent. Based on participant feedback, all physicians agreed that the given Ayush medicines were beneficial (significantly beneficial 92%; little benefit 8%). [Table 8].

Awareness about useful Homoeopathic medicines in the management of NCDs

The knowledge of conventional physicians about homoeopathic medicines being effective in NCDs was also recorded. They were of the view that homoeopathic medicines are effective in the treatment of diabetes, hypertension, chronic pain, skin diseases and allergic conditions. However, there are a few conditions where it is not effective, like dyslipidemia (12%), gynaecological problems (12%) and liver disorders (16%) [Figure 4].

Attitude towards using Homoeopathy in the management of NCDs

Out of 25 conventional physicians, 80% (*n* = 20) strongly recommended integration of mainstream medicine with the Ayush system in the near future, while 20% (*n* = 5) physicians expressed only a probable recommendation for this integration. The conventional physicians believed that the NPCDCS-Ayush integration project should be continued further (yes, to a large extent, 92%; yes, to some extent, 8%). 72% of them

even agreed that they were convinced about the efficacy of the homoeopathic medicines and would recommend them to others, but 28% were still not sure. 96% said that, in the future, they would definitely refer their patients to the Ayush systems of medicine for the integrated management of NCDs, but 4% were not sure about this [Table 8].

Suggestions by the physicians for improvement of the NPCDCS-Ayush integration project

A qualitative analysis was made based on the suggestions obtained from conventional physicians heading the health centres regarding the improvement of the project. The analysis of their suggestions found that there was a requirement for increased manpower (homoeopathic practitioners and multitask workers), timely availability of medicines, free-of-cost laboratory investigations for participants, increased educational material, and an increased number of health camps at Community Health Centres (CHCs). However, an improvement was required in the fund allocation process for the project and for remuneration to the workforce. It was also suggested by the physicians to engage yoga volunteers and ASHA workers for seamless yoga sessions and screening purposes, respectively.

DISCUSSION

The results of this cross-sectional study revealed that out of 1923 participants, a high percentage of those who were exposed to certain risk factors changed their behaviour towards smoking (97.9%), alcohol consumption (90.4%), balanced diet (99.1%), physical activity (93.5%) and yoga practices (82.7%) after being motivated by the Ayush staff. According to the WHO, controlling poor lifestyle choices that lead to the development of NCDs is one of the most important approaches to reducing

Table 7: Correlation between KAP

Variable	Correlation coefficient	P-value
Knowledge - Attitude	0.49**	<0.001
Knowledge - Practice	0.49**	<0.001
Attitude - Practice	0.52**	<0.001

KAP: Knowledge, attitude, and practice

Table 8: Physician's response

Questions	Physicians' response		
	Not at all/No benefit/Will never recommend/Not sure	Yes, to some extent/ Little benefit/May recommend	Yes, to large extent/ Significant benefit/ Certainly yes/Definitely
Are you satisfied with Ayush staff working at your CHC in Integrated NPCDCS program	0	4 (16)	21 (84)
Do you feel the Ayush doctors has been a great support in the management of NCDs	0	0	25 (100)
Do you observe tapering of modern medicines after introduction of Ayush therapy	2 (8)	17 (68)	6 (24)
Do you feel Ayush system can play vital role in prevention of NCDs	0	2 (8)	23 (92)
Do you recommend Integration with Ayush system in near future	0	5 (20)	20 (80)
Do you think Integrated NPCDCS program should be continued further	0	2 (8)	23 (92)
Which kind of feedback from patient for Ayush system of meicine, you have received	0	2 (8)	23 (92)
Do you think that Homeopathic medicines have side effects?	23 (92)	2 (8)	0
If you are convinced about the efficacy of Homeopathic medicines, will you recommend it to anyone?	0	7 (28)	18 (72)
Will you refer the participants in future to Ayush system of medicines for the integrated management of non-communicable diseases?	1 (4)	0	24 (96)

*Data in table are presented as *n* (%)

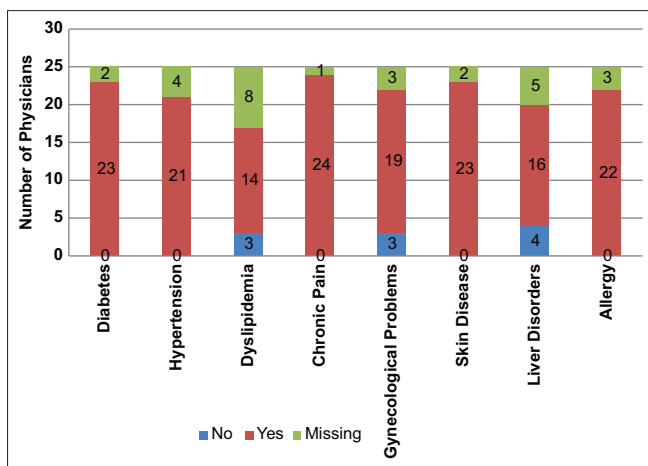


Figure 4: Frequency of physicians aware of Ayush medicines effective for non-communicable disease treatment

fatalities from these diseases. Reducing tobacco and alcohol use, maintaining an active lifestyle and having a balanced diet are among them.^[2]

In a report “India: Health of the Nation’s States” by the Ministry of Health and Family Welfare, Government of India, it is found that there is an increase in the contribution of NCDs from 30% of the total disease burden–“disability-adjusted life years” in 1990 to 55% in 2016 and also an increase in the proportion of deaths due to NCDs (among all deaths) from 37% in 1990 to 61% in 2016.^[1] In the present study, hypertension was found to be the most prevalent NCD, affecting 42.3% ($n = 815$) of all participants, followed by 21.1% ($n = 406$) of participants suffering from diabetes mellitus. A substantial number of diabetic participants with a combination of conditions, such as hypertension, obesity, chronic respiratory diseases, dyslipidemia, coronary artery diseases, and cancer, were in this study, accounting for 31.2% of participants.

The patient’s belief in relation to the homoeopathic treatment in terms of health improvement changed after motivation, as they started believing that homoeopathic treatment is helpful in improving their health condition (98.3%). Overweight and obesity are now alarmingly rising in low- and middle-income countries, particularly in urban settings.^[26] This study revealed a similar pattern, wherein a greater number of participants from urban settings were found to be overweight or obese than those from rural settings.

In this study, it was found that women, married or obese people, participants located in rural settings, particularly in the Krishna district, or homemakers were less proficient in knowledge about NCDs. Urban inhabitants had a higher mean KAP score, which could account for the higher level of acceptability, increased awareness and higher healthcare utilisation due to the higher level of education and economic status of the urban dwellers than the rural population.^[27] A fair correlation between knowledge and attitude as well as knowledge and practice was seen among participants of NCDs, while a good correlation was seen between their attitude and practice,

which reflects a successful approach adopted in the NPCDCS-Ayush integration project ($P < 0.001$). This also indicates that adequate knowledge can lead to a positive attitude that brings about good practices in participants.

The available literature on the treatment of NCDs shows positive results of homoeopathic intervention in hypertension (as an adjunct to conventional medicine), controlling cholesterol levels and managing diabetes and other NCDs.^[11-17] Evidence is also available for the positive effects of yoga interventions in the prevention and treatment of various diseases.^[18-23] The results of this survey showed that 98% of the participants noticed changes in their health condition after taking homoeopathy and yoga. 85.1% agreed that their sleep, mood, anxiety, and behavioural patterns improved after attending yoga classes. Keeping in view the rising prevalence of NCDs, primordial prevention seems an eminent approach to the prevention of NCDs, which comprises lifestyle and behavioural modification. In the present era of increasing NCD trends, we need to put forward every step from prevention to treatment of these diseases. According to a study conducted in South Africa, brief behaviour change counselling (BBCC) that is integrated into routine healthcare has been shown to be effective in helping participants modify the risk behaviours related to NCDs, improve self-management of chronic conditions, and produce clinically meaningful improvements in biological outcomes.^[28]

Additionally, the perspective obtained from conventional physicians demonstrated their complete satisfaction with Ayush staff working at CHCs under this project, as well as the homoeopathic practitioners’ support in the management of NCDs. All the conventional physicians were convinced about the benefits of homoeopathic medicines, and 96% of conventional physicians agreed to recommend participants to the Ayush system of medicine for the integrated management of NCDs. Suggestions obtained from conventional physicians regarding this integration project were overwhelming, which urged the continuation of the NPCDCS-Ayush integration project to prevent NCDs in the diverse population of India with different lifestyles and food habits.

This cross-sectional study also suggests that along with the required treatment, awareness regarding disease prevention and behavioural changes also play an important role in providing healthcare. It reveals that the assessment of the KAP of the participants related to NCDs as well as their socio-demographic profile through the NPCDCS-Ayush integration project was not only helpful in providing a better insight to address poor knowledge and behaviour towards the disease but also explained the role of homoeopathic treatment in NCDs along with health awareness, yoga practices, and behavioural changes. However, the study, being a cross-sectional study, cannot unfold the long-term impact of counselling on the participants suffering from NCDs. Therefore, a longitudinal study may be undertaken with increased workforce, funding, and study time to obtain and evaluate the long-term sustainability of any change in behaviour after counselling in NCD participants.

Moreover, such integrated health programs will not only address the challenge of NCD prevention holistically but will also avoid duplication of efforts.^[29] The improved knowledge, behaviour and beliefs gained through the counselling provided in this project may also advance good practices towards the management of NCDs. Therefore, a progressive approach is needed to be followed by policymakers and national organisations to promote the knowledge of participants relevant to NCDs and their risk factors, as well as their awareness about the effectiveness of Ayush medicines in these diseases.

CONCLUSION

The findings of this study reflect a successful approach adopted in providing homeopathy along with yoga to the participants suffering from NCDs through the NPCDCS-Ayush integration project. A team approach, including homeopathic practitioners and yoga instructors, played an important role in bringing a positive change in the behaviour of participants suffering from NCDs and an improvement in health. This study provides an insight into the potential of integrative care, inclusive of all health managers at the community level, and a patient-centred approach to improve awareness and long-term goal of reducing the burden of NCDs.

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Conflict of interest

None declared.

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Table S1: NPCDCS-AYUSH Integration project study group: Study team at Ayush-Lifestyle Disorders Clinics (ALDCs) of districts

Krishna

Avanigadda: P. Bhaskar, S. Lokesh Kumar; *Challapalli*: I. Lakshmi Deepak, G. Swathi; *Gudivada*: Ch. Aruna Sri, K. Rajesh; *Machilipatnam*: M. Jaya Lakshmi, S. Siva Kumar; *Nandigama*: M. Jaya Subhashini, V. Pragathi Pawan; *Nuziveedu*: N. Sree Hanumantha Rao, R. Jyothsna; *Tiruvuru*: K. Kishore, Masarath Sulthana; *Vissannapeta*: B. Poorna Chandra Rao; *Vuyyuru*: Dr.K.Srinivasulu, Dr.Y.Surya Narayana

Darjeeling

Kalimpong: Dr Pulakendu Bhattacharya, Dr Baishakhi Ghosh, Dr Ruma Debbarna;

Siliguri (CRU): Dr Abhiram Banerjee; Phansidewa:

Dr Indra Dev Pratap; Bijanbari: Dr Santosh Kumar Suman;

Mirik: Dr Sabiha Rafique, Dr Chandranath Ghosh, Dr Souvik Jana; *Pedong*: Dr Md. Mostafijur Rahaman, Dr Nicky T Bhutia;

Sambalpur

OMCH&R: Pankaj Shukla; *Themra*: Mahendra Agrahari; *Jujumura*: Sanjay Debnath, Debashish Sharma Sarkar;

Nashik: Nitesh Jangid; *Igatpuri*: Xinix Xavier, Yogini Jadhav, Kalwan: Prajakta Dhanvijay.

Impact de l'homéopathie et du yoga en tant que projet pilote intégré avec le Programme national de prévention et de contrôle du cancer, du diabète, des maladies cardiovasculaires et des accidents vasculaires cérébraux (NPCDCS) : une étude transversale.

Background: There is a growing concern about the increasing burden of Non-Communicable Diseases (NCDs) and their risk factors globally.

Objectifs: Cette étude évalue l'impact de l'Intégration de l'Ayush (Homéopathie avec Yoga) dans le Programme National de Prévention et de Contrôle du Cancer, du Diabète, des Maladies Cardiovasculaires et des Accidents Vasculaires Cérébraux (NPCDCS) au niveau des patients et des médecins conventionnels.

Méthode: Cette étude transversale a été réalisée sur les participants déjà inscrits pour le traitement des MNT dans 22 cliniques Ayush-Lifestyle Disorders (ALDCs) dans quatre districts de l'Inde. Les participants de tout sexe, âgés de 30 ans ou plus, ont été inclus. Un questionnaire structuré couvrant les connaissances, l'attitude et la pratique concernant les MNT a été rempli par les participants. Le coefficient de corrélation de Pearson a été appliqué pour mesurer la relation entre les connaissances, l'attitude et la pratique.

Résultats: 1 923 participants ont pris part à l'étude. 68,7% (n=1322) étaient dans une large mesure d'accord avec les bénéfices de la médecine homéopathique, 29,7% (n=917) étaient d'accord dans une certaine mesure, tandis que 1,5% (n=29) n'étaient pas d'accord sur les mérites de l'homéopathie. 61,8 % (n=1 189) des participants ont remarqué des changements considérables dans leur état de santé après avoir suivi l'homéopathie et le yoga, tandis que 36,2 % (n=696) ont ressenti un changement dans leur état de santé dans une certaine mesure, et les 1,1 % restants (n=22) ne l'ont pas remarqué. Tout changement. La corrélation a révélé des corrélations linéaires positives significatives entre connaissance-attitude ($r = 0,49, p < 0,001$), connaissance-pratique ($r = 0,49, p < 0,001$) et attitude-pratique ($r = 0,52, p < 0,001$).

Conclusion: Les résultats indiquent une approche intégrée réussie qui peut être adoptée pour fournir des soins de santé aux patients souffrant de NCDs.

Auswirkungen der Homöopathie zusammen mit Yoga als integriertes Pilotprojekt im Rahmen des Nationalen Programms zur Prävention und Kontrolle von Krebs, Diabetes, Herz-Kreislauf-Erkrankungen und Schlaganfall (NPCDCS): Eine querschnittliche Studie

Hintergrund: Weltweit wächst die Besorgnis über die zunehmende Belastung durch nicht übertragbare Krankheiten (NCDs) und deren Risikofaktoren.

Zielsetzungen: Diese Studie bewertet die Auswirkungen der Integration von Ayush (Homöopathie zusammen mit Yoga) in das Nationale Programm zur Prävention und Kontrolle von Krebs, Diabetes, Herz-Kreislauf-Erkrankungen und Schlaganfall (NPCDCS) auf der Ebene der Patienten und der Schulmediziner.

Methode: Diese Querschnittsstudie wurde an Teilnehmern durchgeführt, die bereits für die Behandlung von NCDs in 22 Kliniken für Ayush-Lebensstilstörungen (ALDCs) in vier Distrikten in ganz Indien eingeschrieben waren. Eingeschlossen wurden Teilnehmer jeden Geschlechts im Alter von 30 Jahren oder älter. Die Teilnehmer füllten einen strukturierten Fragebogen zu Wissen, Einstellung und Praxis in Bezug auf NCDs aus. Der Korrelationskoeffizient von Pearson wurde angewandt, um die Beziehung zwischen dem Wissen, der Einstellung und der Praxis zu messen.

Ergebnisse: 1923 Teilnehmer nahmen an der Studie teil. 68,7% (n=1322) stimmten den Vorteilen der homöopathischen Medizin in hohem Maße zu, 29,7% (n=917) stimmten in gewissem Maße zu, während 1,5% (n=29) den Vorteilen der Homöopathie nicht zustimmten. 61,8% (n=1189) der Teilnehmer stellten nach der Einnahme von Homöopathie und Yoga erhebliche Veränderungen ihres Gesundheitszustandes fest, während 36,2% (n=696) die Veränderung ihres Gesundheitszustandes in gewissem Maße spürten und die restlichen 1,1% (n=22) keine Veränderung feststellten. Die Korrelation ergab signifikante positive lineare Korrelationen zwischen Wissen-Einstellung ($r = 0,49, p < 0,001$), Wissen-Praxis ($r = 0,49, p < 0,001$) und Einstellung-Praxis ($r = 0,52, p < 0,001$).

Schlussfolgerung: Die Ergebnisse weisen auf einen erfolgreichen integrierten Ansatz hin, der bei der Gesundheitsversorgung von Patienten, die an NCDs leiden, angewendet werden kann.

राष्ट्रीय कैंसर, मधुमेह, हृदयवाहिका रोग और आघात रोकथाम एवं नियंत्रण कार्यक्रम (एनपीसीडीसीएस) के साथ एक एकीकृत पायलट प्रोजेक्ट के रूप में होम्योपैथी के साथ योग का प्रभाव: एक क्रॉस-सेक्शनल अध्ययन

पृष्ठभूमि: विश्व स्तर पर गैर-संचारी रोगों (एनसीडी) के बढ़ते बोझ और उनके जोखिम कारकों को लेकर चिंता बढ़ रही है। **उद्देश्य:** यह अध्ययन रोगियों और पारंपरिक चिकित्सकों के स्तर पर राष्ट्रीय कैंसर, मधुमेह, हृदयवाहिका रोग और आघात रोकथाम एवं नियंत्रण कार्यक्रम में आयुष (होम्योपैथी के साथ योग) के एकीकरण के प्रभाव का आकलन करता है। **विधि:** यह क्रॉस-सेक्शनल अध्ययन भारत के चार जिलों

में 22 आयुष-जीवन शैली विकार क्लिनिकों (एएलडीसी) में एनसीडी के उपचार के लिए नामांकित प्रतिभागियों पर किया गया था। 30 वर्ष या उससे अधिक आयु के किसी भी लिंग के प्रतिभागियों को शामिल किया गया। एनसीडी के संबंध में ज्ञान, दृष्टिकोण और प्रथा को शामिल करने वाली एक संरचित प्रश्नावली प्रतिभागियों द्वारा भरी गई थी। ज्ञान, दृष्टिकोण और प्रथा स्कोर के बीच संबंध को मापने के लिए पियर्सन कोरिलेशन कोफिशियंट लगाया गया था। **परिणाम:** 1923 प्रतिभागियों ने अध्ययन में भाग लिया। 68.7% (एन = 1322) होम्योपैथिक चिकित्सा के लाभों से काफी हद तक सहमत थे, 29.7% (एन = 917) कुछ हद तक सहमत थे, जबकि 1.5% (एन = 29) होम्योपैथी के गुणों के बारे में सहमत नहीं थे। 61.8% (एन = 1189) प्रतिभागियों ने होम्योपैथी और योग लेने के बाद अपनी स्वास्थ्य स्थिति में काफी बदलाव देखा, जबकि 36.2% (एन = 696) ने कुछ हद तक स्वास्थ्य में बदलाव महसूस किया, और शेष 1.1% (एन = 22) ने कोई बदलाव नहीं देखा। कोरिलेशन द्वारा ज्ञान-दृष्टिकोण (आर = 0.49, पी < 0.001) ज्ञान-प्रथा (आर = 0.49, पी < 0.001) और दृष्टिकोण-प्रथा (आर = 0.52, पी < 0.001) के बीच महत्वपूर्ण सकारात्मक रैखिक सहसंबंध व्यक्त हुए। **निष्कर्ष:** जाँच परिणाम एक सफल एकीकृत दृष्टिकोण का संकेत देते हैं जिसे एनसीडी से पीड़ित रोगियों को स्वास्थ्य देखभाल प्रदान करने में अपनाया जा सकता है।

Impacto de la homeopatía junto con el yoga como proyecto piloto integrado en el Programa Nacional para la Prevención y el Control del Cáncer, la Diabetes, las Enfermedades Cardiovasculares y los Accidentes Cerebrovasculares (NPCDCS): Un estudio transversal

Antecedentes: Existe una creciente preocupación por el aumento de la carga de las Enfermedades No Transmisibles (ENT) y sus factores de riesgo a nivel mundial.

Objetivos: Este estudio evalúa el impacto de la Integración de Ayush (Homeopatía junto con Yoga) en el Programa Nacional para la Prevención y el Control del Cáncer, la Diabetes, las Enfermedades Cardiovasculares y los Accidentes Cerebrovasculares (NPCDCS) a nivel de pacientes y médicos convencionales.

Método: Este estudio transversal se llevó a cabo en los participantes ya inscritos para el tratamiento de las ENT en 22 clínicas de trastornos del estilo de vida Ayush (ALDC) en cuatro distritos de la India. Se incluyeron participantes de cualquier sexo, de 30 años o más. Los participantes rellenaron un cuestionario estructurado sobre conocimientos, actitudes y prácticas en relación con las ENT. Se aplicó el coeficiente de correlación de Pearson para medir la relación entre las puntuaciones de conocimiento, actitud y práctica.

Resultados: 1923 participantes tomaron parte en el estudio. El 68,7% (n=1322) estaba de acuerdo en gran medida con los beneficios de la medicina homeopática, el 29,7% (n=917) estaba de acuerdo en cierta medida, mientras que el 1,5% (n=29) no estaba de acuerdo con los méritos de la Homeopatía. El 61,8% (n=1189) de los participantes notó cambios considerables en su estado de salud después de tomar Homeopatía y yoga, mientras que el 36,2% (n=696) sintió el cambio en la salud en cierta medida, y el 1,1% restante (n=22) no notó ningún cambio. La correlación reveló correlaciones lineales positivas significativas entre conocimiento-actitud ($r=0,49$, $p<0,001$) conocimiento-práctica ($r=0,49$, $p<0,001$) y actitud-práctica ($r=0,52$, $p<0,001$).

Conclusiones: Los hallazgos indican un enfoque integrado exitoso que puede adoptarse en la prestación de asistencia sanitaria a pacientes que sufren ENT.

同性恋与瑜伽作 癌症、糖尿病、心血管疾病和中 国家 防和控制 划 (NPCDCS) 的 合 点 目的影响：跨部 研究。

背景: 全球范 内，人 越来越担心非 染性疾病及其 因素的 担越来越重。

目的: 本研究 估了将Ayush (势 法与瑜伽) 入癌症、糖尿病、心血管疾病和中 国家 防和控制 划 (NPCDCS) 对患者和常 医生的影响。

方法: 这 横断面研究是对已 在印度四个地区的22家阿尤什生活方式障碍 所 (ALDC) 接受非 染性疾病治 的 参与者 行的。包括年 在30 或以上的任何性别的参与者。参与者填写了一份涵盖非 染性疾病知 、 度和实 的 构化 卷。Pearson相 系数用于衡量知 、 度和实 得分之 的 系。

果: 1923名参与者参与了这 研究。68.7% (n=1322) 在很大程度上同意 势 法 物的益处，29.7% (n=917) 在一定程度上同意，1.5% (n=29) 不同意 势 法的优点。61.8% (n=1189) 的参与者在服用 势 法和瑜伽后注意到自己的健康状况 生了 著 化，36.2% (n=696) 的参与者感 到了健康状况的某种 化，其余1.1% (n=22) 的参与者没有注意到任何 化。相 分析 示，知 度 ($r=0.49$, $p<0.001$)、知 实 ($r=0.49$, $p<0.001$) 和 度实 ($r=0.52$, $p<0.001$) 之 存在 著的 正 性相 性。

: 研究 果表明，在 非 染性疾病患者提供医 保健方面，可以采用一种成功的 合 方法。