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Nirmal Bhusal  
Assistant Professor & Head; Department  
of Panchakarma  
Institute of Medicine, Tribhuvan  
University, Kirtipur  
Email: [Bhusalnirmal7@gmail.com](mailto:Bhusalnirmal7@gmail.com)

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## Effectiveness of School Ayurveda Health and Yoga Education Programme

Nirmal Bhusal<sup>1\*</sup>, Suprich Sapkota<sup>2</sup>, Vasudev Upadhyay<sup>3</sup>, Siddhartha Thakur<sup>4</sup>, Sarad Panthi<sup>5</sup>

<sup>1</sup>Assistant Professor & Head; Department of Panchakarma, Institute of Medicine, Tribhuvan University, <sup>2</sup>Provincial Coordinator, NTD/Kalazaar, WHO, Surkhet, <sup>3</sup>Secretary; Lumbini Province, Ministry of Health, & Former Director General, Department of Ayurveda and Alternative Medicine, <sup>4</sup>Acting Director, Provincial Ayurveda Hospital, Lakhampur, Koshi Province & Former Executive Director, National Ayurveda Research and Training Centre

<sup>5</sup>Medical Officer; Ayurveda Health Centre, Baglung, Gandaki Province, Nepal

### ABSTRACT

**Background:** Department of *Ayurveda* and Alternative Medicine (DOAA) under the Ministry of Health and Population is the apex unit responsible for the formulation and implementation of various programs related to *Ayurveda* and alternative medicine. School Ayurveda Health and Yoga Education Program (SAHYP) is a program which is being implemented by DOAA in some Schools through *Ayurveda health* centres to create awareness about the Ayurveda healthy lifestyle; importance, uses and benefits of locally available plants of medical value; benefits of different *Yoga* and their practices.

**Materials and Methods:** This study adopted qualitative approach study design and took data from schools of 7 districts, one from each province, with SAHYP between March to July 2019. The sample size for the study 14 (FGD), 28 (KII) = 42 were taken.

**Results and Discussion:** Students have shown interest to take the class and learn something new about *Ayurveda* and healthy lifestyle. The schools were positive about the SAHYP and have been supportive. School have been supporting in management of the space, time and gathering the participants and encouraging and motivating students to participate in the program. Few children were practising *Yoga* at their home, in addition to this they have been informing other people about the information on *Ayurveda* services available and helping other people to visit the health centre and change the perception of people on *Ayurveda*.

**Conclusion:** The program has managed to make some notable impact in the school children and community people in areas where the program is being implemented. The program is effective and has also helped to increase the utilization of *Ayurveda* health services.

**Keywords :** School *Ayurveda*, education program, students, *yoga*, impact

### INTRODUCTION

*Ayurveda* is one of the oldest systems of medicine.<sup>1</sup> It is the science of life, which aims to bring harmony between intrinsic and extrinsic factors that can be related to the health of human kinds and to make people free from sufferings. Medical knowledge and skills of *Ayurveda* health care were based as per the principles in the *Atharva Veda* and *Rig Veda* which were practised by sages and saints.<sup>2</sup> *Acharyas* have developed various manuscripts in *Ayurveda* such as *Charak Samhita*, *Susruta Samhita*, *Kashyap Samhita* and many more.<sup>3</sup> There is use of *Ayurveda* in 93 WHO member countries, 16 countries have frameworks to regulate *Ayurveda* practitioners, and 5 countries have health insurance coverage for *Ayurveda* practices as stated by the WHO global report on traditional and complementary medicine 2019.<sup>4</sup> *Ayurveda* is the most widely practised traditional medical system in South Asia.<sup>5</sup> People of South-Asia developed a strong tradition of *Ayurveda* and follows a great deal of that tradition.<sup>6</sup> From early time the systematic training in *Ayurveda* involved knowledge being transmitted personally from *Guru* (teacher) to *Sishya* (student).<sup>7</sup> *Ayurveda* education

now came to be delivered through the institutional system, with established educational standards that had never existed in the traditional approach.<sup>8</sup> About 2/3<sup>rd</sup> of the population of developing nation rely on plant products directly or indirectly.<sup>9</sup> Nepal is home to more than 700 herbal plants and also regarded as the fertile zone for *Ayurveda* and natural medicine.<sup>10</sup> Nepal Health Policy 1991 spoke about the development of *Ayurveda* health Services and its infrastructure gradually on basis of evaluation of the quality of services.<sup>11</sup> National *Ayurveda* Health Policy 2052 defined the possible working areas of *Ayurveda* Health Services.<sup>12</sup> Similarly, National Health Policy 2071 puts its special consideration in promoting quality of *Ayurveda* Health Services.<sup>13</sup> Health promotion and disease management are two equally important goals for *Ayurveda*.<sup>14</sup>

Department of *Ayurveda* and Alternative Medicine (DOAA) under the Ministry of Health and Population is the apex unit responsible for the formulation and implementation of various programs related to *Ayurveda* and alternative medicine. DOAA regulates *Ayurveda* hospitals, *Ayurveda* health centre and *Ayurveda Aushadhalayas* (dispensaries). Through its extensive network all across the nation, DOAA has been providing curative, preventive and promotive health services.<sup>15</sup> Among the various health care services being provided by DOAA through the network of various *Ayurveda* facilities School *Ayurveda* Health and *Yoga* Education Program (SAHYP) is a program which is being implemented in some schools in each districts to create awareness about the *Ayurveda* lifestyle; uses and benefits of locally available plants of medical value; benefits of different *Yoga* and their practices. This program also aims to aware students on services being provided at *Ayurveda* health facilities. This program is being implemented through *Ayurveda* hospitals, all district *Ayurveda* health centre and *Ayurveda* dispensaries in some selected schools. The key activities are coordination and conduction of health education classes related to *Ayurveda* health care, medicinal plants and *Yoga* with use of

various IEC materials.

**Objectives:** To analyse the effectiveness of the School *Ayurveda* Health and *Yoga* Education Program. To analyse the impact of the School *Ayurveda* Health and *Yoga* Education Program in program implemented areas.

MATERIAL AND METHODS

This study adopted both the qualitative approach study design. The study covered 7 districts, one from each province as representative sample namely Taplejung, Bara, Bhaktapur, Mustang, Dang, Mugu and Kanchanpur where School *Ayurveda* Health and *Yoga* Education Program was being implemented during the Fiscal year B.S. 2075/76. The selection of the district was made for representation of 7 provinces and 3 ecological zones. The study population for this study included head of zonal *Ayurveda* hospital/district *Ayurveda* health centre/ *Ayurveda* dispensaries, other health workers, and members of health/school management committee, principal and teachers. Students, Female Community Health Volunteer ( FCHVs), service beneficiaries (will be included with the norms of *Gender Equality and Social Inclusion -GESI*), elderly people and people with disabilities. The tools for the data collection were; Key Informants Interview (KII Guidelines), Focus Group Discussion (FGD Guidelines) and Questionnaire/ forms. The Health Institution and its coverage school/ORC site as sampling unit were selected on simple random sampling method. For the sampling the list of the ORC sites and school where the programs is being implemented was prepared and same was taken as sampling frame. The sample size for the study 14 (FGD), 28 (KII) = 42 were taken. Informants for KII were head of zonal *Ayurveda* hospital/district *Ayurveda* health centre, head of *Ayurveda* dispensaries and other health workers, school principal and teacher, chairperson/mayor of rural/urban municipalities and ward (members of HFOMC and SMC). Informants for FGD were community people and student.

Table 1. The sample size for the study

Informants	Methods	Taplejung	Bara	Bhaktapur	Mustang	Dang	Mugu	Kanchanpur
Head of Zonal <i>Ayurveda</i> Hospital/District <i>Ayurveda</i> Health Centre	KII	1	1	1	1	1	1	1
Head of <i>Ayurveda</i> Dispensaries and other health workers	KII	1	1	1	1	1	1	1
School Principal and Teacher	KII	1	1	1	1	1	1	1
Chairperson/Mayor of rural/urban municipalities and ward (members of HFOMC and SMC)	KII	1	1	1	1	1	1	1
Community People	FGD	1	1	1	1	1	1	1
Students	FGD	1	1	1	1	1	1	1
	Total	14 (FGD), 28 (KII) = 42						

During and after the period of study ethical integrity was highly maintained. For this, anonymity of respondents and responses was maintained throughout the survey and after the completion of the survey as well. Informed consent was taken before the collection of the data and information. The research study was funded by DOAA and facilitated by National *Ayurveda* Research and Training Centre, kirtipur.

**Data collection and management:** For the data collection, the enumerators with sound knowledge in *Ayurveda* and local language were hired for each district. The hired enumerators were oriented on the objectives of the program and the study. After that enumerators were oriented on the tools and techniques for data collection and recording the information in recorder. Prior to the movement of the team to the district the enumerators were sent to the nearby location for pre-testing of the tools. For primary data collection Key informants Interview and Focus group Discussion were performed. Key informant interview guideline and FGD guideline were developed as per the objective and research question of the study. For the secondary data, the institutional data was taken. The qualitative data was collected through the recorder with unique ID. The recorded information were be transcribed in the language

of response and was translated into English. The qualitative data were analysed in a thematic aspect being based upon the objectives and research question of the study. For analysis of quantitative data descriptive analysis was done whereas, for the qualitative data free listing of narrative responses, domain formation, code application and data summarization was undertaken using Nvivo software.

RESULTS

The number of school covered varies across the districts; it ranges from 1 to 8 Schools. From one event average of 150-200 students were benefitted. One SAHYP per school is being conducted in a year but in some district team were able to conduct 2 SAHYP in a school in a year. Students as well as the community people have shown interest to take the class and learn something new about *Ayurveda*. The community and the schools were very positive about the SAHYP and have been very supportive. Taplejung district conducted the highest number (36) of SAHYP in that period between fiscal year 2072/73 to 2075/76, which was followed by Dang (19). Mugu has the least number of SAHYP conducted in that period. In reaching the beneficiaries Dang has reached the maximum number of beneficiaries (2282) whereas the least was of Mugu (245).

Table 2: Study themes and codes for the study

Themes	Codes
Effective - coordination and conduction of classes	Awareness, frequency of period, beneficiaries, activities, information shared, intervention, development and use of various IEC materials. more effective task /
Impact –Implementation and healthy behaviour	Immediate impact, change in service utilization, change in behaviour/ Swasthyabreet, budget allocation, implementation policy.

**Effectiveness:** The effectiveness of *Ayurveda* education session and *Yoga* practice session was looked after to see effectiveness of program as a whole. Both educational session and *Yoga* session were considered as effective as both activities were found to complements each other in learning. But in many instances educational session was considered more effective as it focuses on the foundation formation for the change. Both activities have shown the desirable effects as per the objective of the program. Although the educational session was considered as effective, *Yoga* session was felt important and more practical.

*KII Prinicipal: Ayurveda Education class is more effective because students become clearer about the name of the herbal plants and its uses. These students are active and educated and involve themselves to teach community people.*

*FGD Community: The educational classes are more effective because, we have noticed student sharing the information to their neighbours and family members.*

*FGD Student: Education on identification of herbal medicine and Ayurveda is more effective. It helps to identify the medicinal herbs and also helps people to make aware on local medicine. If only yoga classes are run then it is no use as it won't bring change in large population. To sustain the yoga also education is needed so*

*educational activities should be given at first.*

*FGD students: All activities are effective, but depend on the focus of the students. Yoga is more effective as they have more energy and enthusiasm.*

*KII Mayor: Yoga is more effective, as it can be arranged as per the conditions of the students*

As a part of effectiveness, appropriateness of the activities to bring better health outcome was assessed and most of the students felt that the activities of the program were appropriate and suitable to them and were effective enough for better health, but were concerned with the number of classes being conducted in a year. Other participants of the study expressed that student age is the appropriate time to introduce the information and *Yoga* session as it will be easier to form habit at that age.

*KII teacher: It is very appropriate as it makes them aware about the daily routine activities to be healthy, medicinal plants and herbs available in locality. It is nothing serious like doing operation and othertedioustask.Itisjustaboutformingdailyfoodhabitandphysical activities. It is just about doing certain task in regular basis as per the rules of yoga. I feel it is easy subject matter for the students as well.*

*FGD community: This is awareness program and is in preventive approach for health so it is appropriate. It has focus on*

sustainability of physical health and prevents health issues. So, it is effective as well. Even though the activities are effective, effects can only be seen if they are run in regular basis (daily).

FGD student: P1: *It can be effective for better health. It can help us to be healthy by regular exercise which enables us to be focused on our studies.*

FGD Student: P1: *I don't remember which is more important and effective as it was conducted one year back.*

FGD community: P1: *Ayurveda education in school in very appropriate. It helps to make students, their parents, neighbours community aware about Ayurveda. They can also act as the mediator. Yoga classes are useful to the students from class 8 to 12 but it may be difficult to the students below 8 classes. It can be useless and misused if given to classes less than 8th grade. This Ayurveda education can make the whole community civilized. Ayurveda is not only to treat the disease, it is also about preventing the occurrence of diseases. If this concept is promoted then there will be improvement in the society. Use of allopathic medicine can be reduced by increasing the use of Ayurveda medicine which doesn't have side-effects.*

While assessing the underperforming activities, most of the participants of the survey expressed that there is no activities which are under performing, but some of the participants pointed that whole program of SAHYP is being under-performing as there is no availability of necessary human resource and adequate budget, which has led to conduction of only few number of classes/event in a year.

KII Health worker: *It has no such under-performing activity, but we people do not have plenty of time and Human resources to conduct the SAHYP.*

KII Head: *The program has very high expectation, so to meet the expectation training to the staffs should be given, provision of manuals. Due to the individual differences and in absence of manuals the program as a whole may not perform as expected.*

**Impact:** While assessing the impact of SAHYP, some students admitted that there have been changes in them due to the SAHYP, they were able to concentrate in their study, body has become energetic due to the Yoga they learnt and from the knowledge of home remedies they have been able to cure minor flu and cough in their home. For some it has helped to develop a new habit of doing Yoga.

FGD student: *Body has become more energetic and concentration in study. Minor flu was cured by home remedies.*

FGD Student: *We have never done yoga before, but after the class on yoga we have done sometimes, this is the only change.*

FGD Student: *I don't feel there any much changes due to the program, as it was conducted only once for one day. We just learn few things. If it was conducted regularly and for more than one day, it was possible to learn and retain in our memory. One day*

*class hasn't brought any changes in us.*

Only few students, who participated in the SAHYP shared the learning from the classes to their neighbour, family and community. Whereas many felt they were not confident enough to share the information as they had not learnt properly and had plan to share with other once they learn the things completely.

FGD Student: P1: *Our senior shared the information on what they learnt in the class with junior students of school, we did not get any response from them.*

FGD student: *We haven't shared anything as we are not that capable and confident as we have not learnt properly and enough yet. The program was just conducted once. After learning properly we will share skills in our house.*

The immediate impact seen due to the SAHYP was mostly change in knowledge and belief on Ayurveda and also changes in the food habit.

FGD community: *Many people did not know about the many diseases can be treated by Ayurveda and this program has made changes in their knowledge. They were also unknown about skilled human resource in Ayurveda to treat the diseases using Ayurveda medicine (i.e. no knowledge about separate discipline of study for human resource in Ayurveda), they had belief that Ayurveda drug prescription is traditional practice which is learnt in household level. This Ayurveda education class has changed that belief among the people.*

KII Principal: *Changes in the behaviour and habit of the students have been noticed, we haven't got chance to gather detail information in changes due to SAHYP.*

As an effect of the SAHYP, students have been found working as the channel for information dispersion in the community, due to the information given to students in the SAHYP, people are visiting the Ayurveda health centre for check-up and medicine. In addition to this, people are also being aware of the Ayurveda from the programs/commercials and notices displayed in television. This has made people inclined towards the spiritual health and Ayurveda.

KII mayor: *This SAHYP has helped to increase of utilization of Ayurveda health services, as students inform the people in community and also in present time Yoga has enabled people to influence spiritually. In addition to this people are adopting yoga by their own for better health, which has enabled to increase in utilization of services.*

## DISCUSSION

Most of the students were aware of the SAHYP especially from the senior classes but some of them were totally unknown about the SAHYP whereas only very few community people knew about the SAHYP and some of them were confused with the Ramdev's Yoga session. Some students who were recently upgraded to class 9 were not aware about the SAHYP, for them the SAHYP was



just heard topic. The channel for the information on SAHYP to most of the participants were staffs from *Ayurveda* health centre and for few community people students were the informer. *Yoga-ashan*, education about *Ayurveda*, information on home remedies, information on locally available medicinal plants, *Swasthyabreet*, information of point of contact to receive *Ayurveda* health services were the key components included in the SAHYP in most of the school. In some schools, only educational session on *Ayurveda* was done which focused on information on food habit, seasonal routine, and the reason behind this was unavailability of *Yoga* instructor. The key informants appreciated the implementation and positive impact of SAYHP program on students, schools and communities. The positive impacts were improved student's behaviour and enhanced community awareness. DOAA is the leading institutions for implementing the program. At district level and schools were actively involved. Majority key informants mentioned that SAYHP program in the schools provided students the opportunity to get acquainted with *Ayurveda* Education and *Yoga* training. They also mentioned that the program significantly improved student's knowledge, awareness regarding *Ayurveda* and *Yoga*. The improved behaviour included *Yoga* practice by some students, *Ayurveda* service utilization by the parents and family members of students.

Despite the positive impact of the SAYHP program on schools, the study identified several difficulties in implementing the program on regular schedule. Most of the key informants identified insufficient funds and lack of resources as the major hurdles to implement a comprehensive SAYHP program. Many *Ayurveda* Health centers and schools did not have sufficient physical infrastructures or facilities to implement the program efficiently. Lack of resources has been a crucial operational barrier to conduct the program. Most of the key informants identified insufficient funds and lack of material resources as the major hurdles to implement a comprehensive SAHYP program. Similar hurdles were found in the school health and nutrition program in schools of Nepal.<sup>16</sup> School have been supporting in management of the space, time and gathering the participants and encouraging and motivating students to participate in the program. Meanwhile at some instances school may not be able to help by allocating many classes, as they don't want to hamper their schedule especially in mountain district as in these area people migrate to lower belt before it starts to snow. *Ayurveda* education could have played a significant role in improving student's medicinal plants knowledge. The students have realized the importance of preservation of medicinal plants. The SAYHP program has also shown short- and long-term positive impact on student's attitude towards *Ayurveda* and *Yoga*. Many key informants mentioned that the program had a positive impact on student's *Ayurveda* knowledge status. Student's better access to *Ayurveda* services and *Yoga* practice might have played a significant role in the improved health outcomes. Similar findings of improved behavior due to school program were also reported in the previous study of water, sanitation and hygiene (WASH) in schools.<sup>17</sup> School health programs have been part of schooling and are proved beneficial.<sup>18</sup> The students did not have access to the

trained *Ayurveda* health professionals at schools in regular basis and no focal teacher in each school was trained to conduct SAYHP activities. In the present study, some key informants responded that after the project ended, such training was not conducted anymore. The limitations of study are that we collected data from school-level key informants only in the districts where the SAYHP program was conducted. Therefore, key informant's responses in this study may not represent stakeholder's perceptions throughout the country. However, we interviewed key informants from different provinces. Despite the limitations, this is the first study in Nepal to explore the perceptions of stakeholders regarding the SAHYP program effectiveness and impact in program implemented schools. Although care was taken to maintain the confidentiality of the information and the anonymity of identity of participants, the key informants might have expressed the views that the data collector wanted to hear, leading to bias. For the betterment of the SAHYP, training of health staffs and teachers is required. A standard guideline and training manual is lacking and coverage area of the SAHYP should be increased. *Yoga* in the school setting is a effective strategy for improving child and adolescent health.<sup>19</sup> Introducing *Ayurveda* in school health programme helps in preservation, promotion of health and prevention of disorders. Allocation and timely release of sufficient budget for regularity and coordination with the local government could be done to engage the local bodies for advocacy and importance of *Ayurveda*.

## CONCLUSION

School *Ayurveda* Health and *Yoga* Education Program was found to be effective in schools where the program was being implemented. *Ayurveda* educational session and *Yoga* session were considered effective as both activities were found to complements each other in learning. Few children were practising *Yoga* at their home, in addition to this they have been informing other people about the information on *Ayurveda* and services available and helping other people to visit the health centre and change the perception of people on *Ayurveda*. The program has also helped in the increase in the health service utilization. The program has managed to make some notable impact in the school children and community people.

## RECOMMENDATION

The study provided recommendation to DOAA for organising trainings of health workers and teachers and initiation of awareness program for SAHYP by allocation and timely release of sufficient budget and implementation of program in more schools nationwide. Supportive supervision and coordination with the local government should be done to engage the local bodies for advocacy of *Ayurveda*.

## CONFLICT OF INTEREST

The authors declare no conflict of interest.

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