PSIT- INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH

(A Double-Blind Peer Reviewed International Journal)

ISSN: 2456-2556

PSIT - International Journal of Multidisciplinary Research

(A Double-Blind Peer Reviewed International Journal)

Vol. 3
Issue- 2
Year 2018

Volume 3 Issue 2 2018

PSIT - International Journal of Multidisciplinary Research (ISSN: 2456–2556)

Volume: 3 Issue: 2 2018

Contents: *Research Papers*

IMPACT OF ICT TOOLS IN MEDICAL EDUCATION IN CLASS-B AND CLASS-C COUNTRIES

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ABSTRACT

Now a day there is an excessive problem of shortage of medical faculty members in medical institutions of class –B and class –C countries. In this paper a summary has been given to show the overall impact and strength of Internet and Communication Technology and its related support system to have clear picture of various e-learning tools in medical education. Literature reviewed by various researchers in field of ICT, e-learning, medical and health education has been studied to identify the broader and finer details. Search strings were concatenated using operators "AND" and "OR" to collect all relevant literature and article suggestions. The standard decision criteria is applied to narrow the search and to collect the relevant articles only. It has been identified that in class B and class C countries the ICT tools, e-learning and other related education opportunities to medical faculties, medical students and medical professionals are been benefited a lot. ICT is supporting the learning ability of students and alongside it is also enhancing the effectiveness and efficiency of medical faculty members. However institutional infrastructure constrains, and human readiness plays a vital role in deciding the real effectiveness.

Keywords: ICT, Internet and Communication technology, class B and class C countries, medical education, health education, e-learning, cloud computing, e-teaching.

BACKGROUND

The World Health Organization (WHO) published a report in year 2006 related to workers involved in healthcare which shows that fifty – seven countries are lacking in more than 40 lac trained medical practitioners including doctors, nurses and par- medical staff-persons [1]. Countries especially mentioned as class B and class C standard are much focusing over adding desired infrastructure in established institutes located at prime cities and planning and executing new medical colleges in rural area. All this is done with one objective that is to uplift the medical

doctor graduation ratio in the country [2]. For the same the major issue and challenge is to recruit and depute quality human resource in form of desired faculty members and this is their biggest problem. To solve this issue up to some extent colleges, share experienced faculty from college of repute to these new institutions. In all such cases e-learning is becoming a prospect in extending the needs of quality faculty presence to newly created, remote and rural area based medical colleges [3-5].

In this paper the term e-learning is used to represent all the various types of teaching forms based on any sort of electronic media or medical-teaching oriented electronic communication like distance education, digital library, blended learning, online learning, cloud-based learning, mobile app based learning and distributed learning, and teleconferencing etc. This can be expressed as, uses of information and communication technology (ICT) in teaching & learning medical courses either in classroom or off the classroom [6].

Here, in this paper we tried to catalogue and describe the issues and challenges of ICT based medical education-oriented e-learning in recourse constrained countries generally called class B and class C countries. The current e-learning applications require huge investment on the infrastructure irrespective of the system being commercial or open source [10]. The existing e-learning platforms are not able to scale dynamically and collaborate with other educational institutions. It is expensive to integrate with other systems as it is based on proprietary software [11]. Also, the existing hardware infrastructure in these countries may not be compliant with Web 2.0 based medical education using e-learning technology [12]. On the other side if this cost is compared with cost of quality medical-faculty it seems very low and as effective as traditional teaching. So, in this paper we study the effectiveness and benefits to both teacher and medical student by categorically reviewing the narrowed articles on e-learning in medical education theme.

REVIEW PROCEDURE AND RESULTS

As in a literature review, ethical approval is not a prerequisite, hence literature reviewed by various researchers in field of ICT, e-learning, medical and health education has been studied to identify the broader and finer details. Search strings were concatenated using operators “AND” and “OR” to collect all relevant literature and article suggestions. The standard decision criteria is applied to narrow the search and to collect the relevant articles only. This improved systematic review of literature is performed over the Academic Search Complete, Academic Search Premier, PubMed, peer-reviewed articles, SCOPUS, education full text and IEEE journals. Prime keywords and string used in the search are “medical education using distance mode”, “e-learning in medical education”, “resource constrained”, “ICT and medical teaching”, “e-learning and flip medical education”, “mobile app based e-learning”, e-tutor, and e-mentor, “computer assisted learning “and” blended education. All these search terms are mentioned in table1.

This in depth and wide-ranging search has provided total 974 articles with 45 grey literature resources for a total of 989 articles. Now we narrowed the collected list of articles by valuing their

abstract by any of e-learning variant as well as it must be focused to low income constrained developing nations. If abstract show any ambiguity, then the full article was studied to have clear observations. In the search result we found 12 articles on ICT based medical education, 27 articles on blended education, 45 articles on computer assisted e-learning, 8 articles on simulation multimedia uses in medical education, 5 articles on e-tutor, e-mentor or cloud based medical education, 4 articles on e-learning in medical education in flip-education.

Table 1: Search terms for search strings used with Boolean AND & OR

E-Learning Terms	Medical education terms	Geographical localization terms
internet based learning	medical learning	resource constrained countries
distance learning	medical doctors	low- and medium-income countries
distance education	medical education	class B and class C countries
blended education	post graduate medical education	developing countries
computer based learning	surgery	economically challenged countries
e-learning	medical student	
simulation based learning	health worker	
e-teaching	Para-medical staff	
web-based teaching		
learning management system		
virtual classes		
virtual classroom		
multimedia		
teleconference		
course management system		
online learning		
digital library		
medical e-learning		

BRIEF INTRODUCTION OF ICT BASED LEARNING

The brief introduction of various ICT based e-learning terms and their identified basic needs are summarized in the table2. In reviewing the articles various heads are generalized to some common meaning to identify and categorically define them to meet the commonality among the various e-learning terms [14].

Table 2: E-learning terms and respective identified basic needs

Term	Identified basic needs for the system
Digital library	Mostly commercial products Reliable digital tool Budget for purchasing product and time bound licence
Distance learning or distance education or distributed teaching	Expertise in syllabus designing Well defined and supported instructional and technology tools Learning Management System (LMS) Professionals for e-content preparation Product development facilities.
Blended learning	Expertise in syllabus designing Learning management system Availability of specific tools for both teachers and students
Cloud based learning	Product development facilities Budget for purchasing product and time bound licence (if paid cloud services are used) Professional staff to prepare and manage and also regularly fine tune the cloud and e-content.
Simulation based learning	Well instructed and reliable tools Infrastructure for the setup of simulation Trained staff and students
Online education or virtual learning or web-based learning	Consistent network and other infrastructure needs Option of training proctored examination well supportive instructional supportive tools
Teleconferencing	Consistent network and other infrastructure needs High speed network bandwidth for multipoint visual connection Mostly done by Profit-making third party tools well supportive instructional supportive tools Open source conferencing tools Budget for purchasing product and time bound licence or membership
Mobile learning	Consistent network and other infrastructure needs Tools to capture the classroom lectures Mobile learning solution options to assimilate classroom facilities
Learning Management Systems (LMS)	Consistent network and other infrastructure needs Training for the operation of LMS at various authority levels Integrating LMS with classroom inside/outside teaching and learning

STUDY AND OUTCOMES

The outcomes of reviews of the study material are mentioned as under-

Articles based on ICT or e-learning

After studying the collection of peer- reviewed literature, e- learning articles can be mentioned as six major heads: (a) Thirty two articles focussed on e-learning tools, (b) Eighteen articles specially mentioning planning and implementation of ICT in education, (c) Thirty six articles on analysis on the challenges, successes and experience taken from e-education, (d) Total seven articles were classified as the user preference and ease of doing with e-learning tools, (e) Eleven articles were found relevant for effectiveness and challenges in mobile learning in medical education and (f) Fourteen articles observed suitable to map outcomes on e-learning course curriculum structure with standard course curriculum format.

Countries

In peer-reviewed articles none of the articles found categorically expressing the overall commonness and any specific country wide approach on usage of e-learning tools. Although as a whole literature available on resource constrained countries of class B and class C showing study on various ICT based e-learning tools are summarised in figure 2. The majority of data is being observed from the countries named India, Egypt, Brazil, South Africa and least from Tanzania and Peru [14].

Adoption of ICT tools

The enormous shortage of quality faculty (i.e. teaching resource persons) has become a serious challenge in class B and class C countries, subsequently the adoption of various e-learning tools and techniques are broadly summarised in table 3 as a glance of such encounters/ challenges and there inclusive outcomes..

Learning Aspirants

Here we focussed our review process to all the learners and aspirants, who any way belong to medical field such as post graduate in medical science, post-doctoral in medical education, surgery, nursing staff, pharmacy and Para-medical staff, etc.

Kind of ICT tool	Objective	Challenges	Outcome	Institution and Nation	Author
Deployed Moodle LMS and virtual library in a specially established virtual learning center	Add-on	a. Deadline to complete the production of study material. b. Recruitment pattern duty assignments	LMS become an useful tool among the students. They used virtual learning room to have access the study materials.	University of Colombo Sri Lanka	Rajapakse[19]
Moodle learning management system	Add-on	Regular use and accessibility of computers	Equivalent knowledge acquisition among both e-learner and classroom learner.	University of KwaZulu Natal, South Africa	Mars [20]
Power-Point presentations, digital self-learning content and matching puzzles & interactive quiz for evaluation	Add-on	Video resolution and image resolution were the major problem	Students found easy to use the modules. The knowledge acquisition among both e-learner and traditional learner were found equal.	Amrita Institute of Medical Sciences, India	Kaliyadan [21]
Video conferencing especially for radiotherapy department	To enhance the reachability	Network bandwidth issues lowers the picture quality, availability of presenter	Topics were relevant to students but they preferred in-person lectures because of network limitations.	Sanjay Gandhi Post Graduate Institute of Medical Sciences, India	Agrawal [22]

Integration of Moodle e-learning platform.	Additional	Poor Internet Bandwidth lowers the download speed.	Students appreciated the Moodle and their marks were also improved	University of Malaya, Malaysia	Seluakumaran [23]
Modularized programs on specific topic with interactive text, videos, lectures, photos, and animations (developed by faculty)	Add-on	Some computers faced problems in playing e-media.	Students found modules were helpful in education.	University of Ghana; Kwame Nkrumah University of Science and Technology, Ghana	Adanu [24]

ICT Collaborations

It has been documented in many peer reviewed articles that middle- and low-class countries normally referred as class B and class C have done a partnership with institutes of developed countries as academic alliance to share quality teaching in both e-learning and conventional teaching. Such federal partnership observes thoughtful encounters like- (a) Impact of imparting medical education will become very low and difficult when student-teacher communication even via emails or forums are minimized [13]. (b) Shaping of medical course subject structure according to the need of above-mentioned class of countries.

As an example, CMC from India collaborated with Tufts University, USA to develop a specialised s/w called “TUSK” and proper training was given to operate it effectively. His USA based and US-orient software has been altered as per Indian medical education needs, as well as for mobile use [15].

Remote or Rural area and e-learning

Study of “TUSK” collaborative software of Christian Medical College (CMC), India with US-based Tufts University shows that there is a positive and successful augmentation in conveying clinical training in remote and rural areas on India [15]. Also because of unreliable Internet connectivity and poor bandwidth of communication, mobile e-learning applications are being

rapidly growing to teach clinical trainings especially to medical doctors practicing in rural areas of India [15][16][17][18].

CONCLUSION

Cloud Computing paradigm is a new approach to produce a solution for old problems. Here we have tried to show that the Cloud Computing can also be used for medical colleges or universities. This provides significant benefits such as accessing the file storages, e-mails, databases, educational resources, research applications and tools for faculty, staff, students and other users in the institution. The review exhibits how e-learning is utilized and adapted in a few medical institutions in resource constrained class-B and class-C countries. They utilized e-learning/distance learning concept in variety of ways ranging from digital libraries to more complex distance learning networks, multimedia software, LMS, virtual simulations, mobile applications, etc. Studies suggest that e-learning may be most effective for increasing capacity in rural settings. Although there is thoughtful confidence about e-learning, more experience will be forthcoming, and more analysis is warranted especially around policy-related issues that surface through an institutional e-learning implementation. Educators and institutions have to address policy-related issues including, but are not limited to, ICT such as network security, bandwidth and storage solutions. Further, there is a need for crisp policies in relation to content and knowledge management of e-learning objects, copyright and intellectual property as well as its accessibility. Also, the identification of appropriate e-learning tools for use in resource-constrained settings is next major demand. This will be helpful in analyzing the effect of related modalities, decreasing the already constrained faculty time, understanding the practicality and cost effectiveness of e-learning and finally in developing financial models for the sustainability of e-learning solutions.

REFERENCES

1. World Health Organization HIV/AIDS Programme: Task Shifting to Tackle Health Worker Shortages; 2007.
2. Kinfu H, Dal Poz MR, Mercer H, Evans DB: The health worker shortage in Africa: are enough physicians and nurses being trained? B World Health Organ 2009, 87:225–230.
3. Mars M: Building the capacity to build capacity in e-health in sub-Saharan Africa: The KwaZulu-Natal experience. Telemed J E Health 2012, 18(1):32–37.
4. Agrawal S, Kumar MA, Shrivastava K KS, PantM MS: Training the trainees in radiation oncology with telemedicine as a tool in a developing country: A two-year audit. Int J Telemed Appl 2011, 2011:230670.
5. Oz H: Synchronous distance interactive classroom conferencing. Teach Learn Med 2005, 17(3):269–273.
6. Dev P, Hoffer EP, Barnett GO: Computers in medical education.In Biomedical Informatics. Edited by Shortliffe E, Cimino JJ. New York: Springer Science and Business Media, LLC; 2006:737–762.
7. Tune JD, Sturek M, Basile DP. Flipped classroom model improves graduate student

performance in cardiovascular, respiratory, and renal physiology. AJP Adv Physiol Educ 2013; 37 (4):316–20.
8. Dong C, Sharma N. Flipping the classroom with adaptive learning technology. Med Teach 2015;37 (10): 976.
9. Fei Chen, Angela M Lui, Susan M Martinelli. (2017) "A systematic review of the effectiveness of flipped classrooms in medical education". *Medical Education* 51:6, pages 585-597.
10. A. Canepa and D. Lee, "A virtual cloud computing provider for mobile devices," in Proceedings of the 1st ACM Workshop on Mobile Cloud Computing & Services: Social Networks and Beyond (MCS), no. 6, 2010.
11. Guoli, Z. & Wanjun, L. 2010, "The applied research of cloud computing platform architecture in the e-learning area", The 2nd International Conference on Computer and Automation Engineering (ICCAE), Singapore, pp. 356 – 59.
12. Daniel Chandran & Sunil Kempegowda, IEEE 2010 "2.3 E-learning issues Hybrid E-learning platform based on cloud architecture model: A proposal", The 2010@IEEE International conference on signal and Image Procesing, pp 534-537.
13. Silva-Lopes VW, Monteiro-Leal LH: Creating a histology-embryology free digital image database using high-end microscopy and computer techniques for on-line biomedical education. Anat Rec B New Anat 2003, 273(1):126–131
14. Frehywot et.al. "E-learning in medical education in resource constrained low and middle income countries", http;//www.human-resources-health.com/content/11/1/4, 2013@BioMed central, pp 1-17
15. Vyas RR, Albright SS, Walker DD, Zachariah AA, Lee MY: Clinical training at remote sites using mobile technology: an India-USA partnership. Distance Edu 2010, 31(2):211–226.
16. Khoja S, Scott RE: Creating e-learning resources in preventive medicine for developing countries. J Telemed Telecare 2007, 13(2):105–106.
17. Missen C: Internet in a box: the eGranary digital library serves scholars lacking internet bandwidth. New Rev Info Networking 2005, 11(2):193–199.
18. Chang AY, Ghose S, Littman-Quinn R, Anolik RB, Kyer A, Mazhani L, Seymour AK, Kovarik CL: Use of mobile learning by resident physicians in Botswana. Telemed J E Health 2012, 18(1): 11–13.
19. Rajapakse S, Fernando D, Rubasinghe N, Gurusinghe S: e-Learning in medical education: guide supplement 32.6 - practical application. Medical Teacher 2009, 31(5):452–453.
20. Mars M: Building the capacity to build capacity in e-health in sub-Saharan Africa: The KwaZulu-Natal experience. Telemed J E Health 2012, 18(1):32–37.
21. Kaliyadan FF, Manoj JJ, Dharmaratnam AD, Sreekanth GG: Self-learning digital modules in Dermatology: a pilot study. J Eur Acad Dermatol Venereol 2010, 24(6):655–660
22. Agrawal S, Kumar MA, ShrivastavaK KS, PantM MS: Training the trainees in radiation oncology with telemedicine as a tool in a developing country: A two-year audit. Int J Telemed Appl 2011, 2011:230670.
23. Seluakumaran K, Fedelis JF, Ismail R, Husain R: Integrating an opensource course management system (Moodle) into the teaching of a first-year medical physiology course: a case study. Adv Physiol Educ 2011, 35:369–377.

24. Adanu R, Adu-Sarkodie Y, Opare-Sem O, Nkyekyer K, Donkor P, Lawson A, Engleberg N: Electronic learning and open educational resources in the health sciences in Ghana. Ghana Medical J 2010, 44(4):159–162.

INTELLIGENT THINKING OF ARTIFICIAL INTELLIGENCE IN EDUCATION

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ABSTRACT

Communication methods and medium of our daily life has been changed by the new emerging Technologies. We can go back in our past and look how communication has got so easier over the years. We are using a different types of communication tools with outstanding outputs that we could only imagine some years ago. To communicate with someone in society today, we have so many options present like we can do chat on social media websites, text them, email, or using the traditional approach with new features of calling to a person. Artificial Intelligence is the most popular and advanced technology which we are using now a days in every field of work. The Artificial Intelligence concept and features is used by most of the search engines, websites, smart phones, websites and smart phone OS to improve their performance. The text to speech and Speech Recognition system made by Google is a very unique feature which helps every type of persons in making effective communication. The Text to Speech and Google Assistance features enable multilingual persons to interact with each other without learning each other's language. In this paper we portray a problem statement on Artificial Intelligence Tools usage on a single Classroom of students where each of them is of different countries and admitted in a single course in a university and if any teacher delivers a lecture in his or her class in a single language.

Keywords- Search Engines, Artificial Intelligence, Text-to-Speech, Google Assistance, Natural Language Processing (NLP).

INTRODUCTION

There are several areas now a day we are implementing the conceptual model of Artificial Intelligence like in movies where the movie makers have been predicting the drastic changes that will arise with the advent of widespread Artificial Intelligence. AI can do numerous things in our daily life activities. Mobile phones, websites, washing machines are now using the intelligent feature by implementing AI in it. Therefore, we can say we are surrounded by AI machines and

tools today all the time. Till now we have not seen humanoid robots acting as a teacher but within next few decades, there are many projects which we are working on can make a robotic teacher to teach in a class with computer intelligence to help students and teacher to get more out of educational experience.

1. Basic activities in Education uses Artificial intelligence

Grading homework and exams for large lecture courses in college can be a complex task, even when TAs split it between them. Teachers often find that grading takes up a significant amount of time in lower grades, this time could be used to make interaction with student, professional development work etc. How strong will be the AI in future but it can never replace the human grading. But with the help of AI grading we can now grade multiple choice questions, fill in the blanks, student writing etc. We have such types of software today where we speak in front of a mic and it will be typed on the screen.

2. *Student Based Educational software*

For each and every age group student in the school various categories of educational tools are available. With the help of these tools student can learn certain topics with greater emphasis, repeating things that students haven't mastered.

3. AI can improve the point of learning topics where a teacher lacks

There are so many things while delivering lectures and educational material where the teacher may not always be aware of gaps and it can leave the students confused about certain concepts. While solving an online quiz when a large number of students are found to submit the wrong answer, the system alerts the teacher and gives future students a customized message that offers hints for the right answer for the problem. This type of system helps to fill in the gaps in explanation that can occur in courses, and helps to ensure that all students are building the same conceptual foundation. Rather than waiting to hear back from the professor, students get immediate feedback that helps them to understand a concept and remember how to do it correctly the next time around.

4. Students could get additional support from AI tutors

It is the necessity of a class to have a teacher to discuss a topic but we are living in an era where a class can be run without a teacher. Many tutoring programs based on the model of Artificial Intelligence can teach basic mathematics, writing and some other subjects also. It is the reality that these type of software programs can teach students the basics of each and every subject but so far are not ideal for helping students to think deeply with some creativity, we still need a human teacher for that.

5. Advanced Feedback System by the AI-driven programs for students and educators.

AI cannot only help students and teacher to improve teaching and learning activities but it can also generate the feedback about the success or failure of the courses as a whole. Many Institutes today offers online educational program in which monitoring of each student progress can be done with AI techniques. These kinds of AI systems allow students to get the support they need and for professors to find areas where they can improve instruction for students who may struggle with the subject matter. AI programs at these schools aren't just offering advice on individual courses, however. Some are working to develop systems that can help students to choose majors based on areas where they succeed and struggle.

6. Ways to find and interact with information with AI.

Google adapts results to users based on location and cookies of user's system and check which user visits the website last time. Siri adapts to your needs and commands and decide which product is mostly searched by the user. Google learn the shopping interests and preferences from the last visits and purchases of the user on the website. These kinds of intelligent systems play a big role in how we interact with information in our personal and professional lives and could just change how we find and use information in schools and academia as well. Over the past few decades, AI-based systems have already radically changed how we interact with information and with newer, more integrated technology, students in the future may have vastly different experiences doing research and looking up facts than the students of today.

7. The role of a teacher could be changed by AI.

There will always be a role for teachers in education. AI systems could be programmed to provide expertise, serving as a place for students to ask questions and find information or could even potentially take the place of teachers for very basic course materials. In most cases, however, AI will shift the role of the teacher to that of facilitator.

Teachers will supplement AI lessons, assist students who are struggling, and provide human interaction and hands-on experiences for students. In many ways, technology is already driving some of these changes in the classroom, especially in schools that are online or embrace the flipped classroom model.

8. Trial-and-Error based learning with AI.

Trial and error is a critical part of learning, but for many students, the idea of failing, or even not knowing the answer, is paralyzing. Some simply don't like being put on the spot in front of their peers or authority figures like a teacher. An intelligent computer system, designed to help students to learn, is a much less daunting way to deal with trial and error. Artificial intelligence could offer

students a way to experiment and learn in a relatively judgment-free environment, especially when AI tutors can offer solutions for improvement.

9. AI can change the meaning to find, teach and support students by its Powered Data Intelligence.

It is the basic concept of AI to learn from the previous experiences also known as Smart data gathering. From recruiting to helping students choose the best courses, intelligent computer systems are helping make every part of the college experience more closely tailored to student needs and goals. Data mining systems are already playing an integral role in today's higher-ed landscape, but artificial intelligence could further alter higher education.

10. AI may change where students learn, who teaches them, and how they acquire basic skills.

While major changes may still be a few decades in the future, the reality is that artificial intelligence has the potential to radically change just about everything we take for granted about education. Using AI systems, software, and support, students can learn from anywhere in the world at any time, and with these kinds of programs taking the place of certain types of classroom instruction, AI may just replace teachers in some instances (for better or worse). Educational programs powered by AI are already helping students to learn basic skills, but as these programs grow and as developers learn more, they will likely offer students a much wider range of services.

CONCLUSION

It is not uncommon for educators has to fear how their role would be diminished by the use of technology such as leading school enterprise resource planning (ERP) systems. It is true that when systems are changed end masse there are always some bad things that can happen. In some instances, there are actually logically justifiable reasons for such fears. However, at the same time, it would be absolutely foolish to ignore the improvements and possibilities that AI can offer in the domain of education. It is actually supposed to bring about a dramatic improvement in the overall educational experience with AI. In fact, as has been said already, when you have the right teacher using it AI can actually do wonders that traditional methods of education may not be able to do.

REFERENCES

1. https://fedena.com/blog/2018/03/artificial-intelligence-in-education-how-it-improves-the-leaning-experience.html
2. https://www.jagranjosh.com/articles/role-of-artificial-intelligence-in-improving-education-quality-1507551932-1
3. https://www.analyticsinsight.net/how-to-use-artificial-intelligence-in-education/

AYURVEDA, YOGA AND NATUROPATHY: ANCIENT HERITAGE-MODERN PROFESSIONAL

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ABSTRACT

Ayurveda is made up of two Sanskrit words: Ayu which means life and Veda which means the knowledge of. To know about life is Ayurveda. However, to fully comprehend the vast Scope of Ayurveda let us first define "Ayu or life Awarding to the ancient Ayurvedic Scholar Charaka, "Ayu" if comprised of four essential parts. The combination of mind, body, senses and the Soul." [1]. Ayurveda is a system of medicine with historical roots in the Indian subcontinent. Globalized and modernized practices derived from Ayurveda tradition are a type of alternative mid medicine. In countries beyond India, Ayurveda therapies and practices have been integrated in general wellness applications and in some cases in medical use. The main classical Ayurveda text begin with accounts of the transmission of medical knowledge from the gods to sages and then to human physicians." [2]. Let us we understand the same in detail in main body of the article. This article may provide reader a basic knowledge of Ayurveda, naturopathy and yoga in ancient professional.

Keywords: Ayurveda, Naturopathy, Yoga and Ancient Heritage

INTRODUCTION

In Sushruta Samtita: Sushruta wrote that: Dhan Vantari Hindu god of Ayurveda, incarnated himself of a king of Varanasi and taught medicine to a group of physicians, including Sushruta-2. The earliest classical Sanskrit works on Ayurveda describe medicine into eight components. This characterization of the physician, art " The medicine that has eight components is found first found in the Sanskrit epic the Mahabharat, Ca4th century BCE." [3]

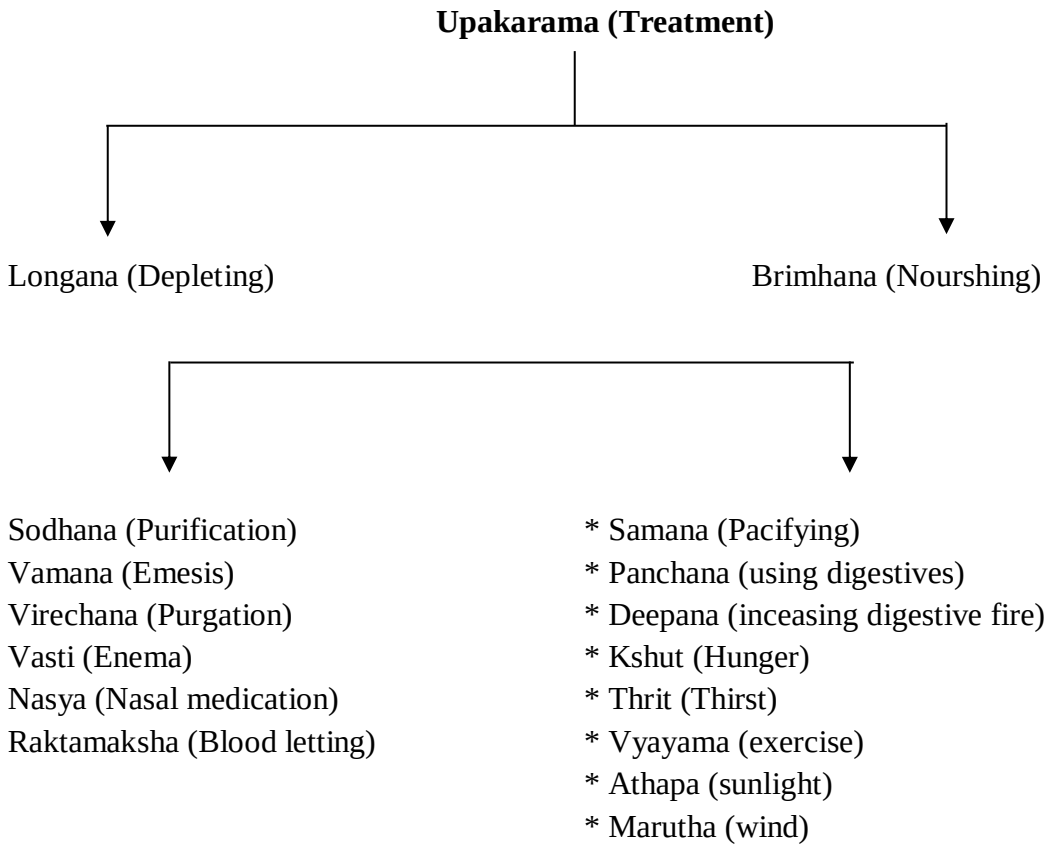
- **Kayacikista**: General medicine of the body.
- **Kaumara bhrtya**: Treatment of children, pediatrics.
- **Salyatantra**: Surgical technic.
- **Salakyatantra**: Treatment of ailment affecting ears, eyes, nose, etc.
- **Bhutavidya**: Pacification of possessing sprits and the people whose minds are affected by such possession.
- **Aadatantra**: Toxicology.
- **Rasayanatantra**: Rejuvenation and tonics for increasing lifespan, intellect and strength.

- **Vajikaranatantra**: Aphrodisiacs and treatment for increasing the volume and viability of Semen and sexual pleasure.

The word "Ayurveda" is Sanskrit Ayurveda meaning knowledge of life and longevity.

Ayurveda also names three elemental substances, the doshas called Vata, Pitta, kapha and states that a balance of the doshas when they are equal to each other, while another view is that each human possesses a unique combination of the doshas which define this person's temperament and characteristic. In either case, it says that each person should modulate their behaviour or environment to increase or decrease the doshas and maintain their natural state." [4]

Ayurveda has eight ways to diagnose like, called, Nadi (pulse), Mootra (urinal), Mala (stool), Jihva (tongue), shabda (speech), sparsh (touch), drunk (vision) and Aakruti (appearance)



Ayurveda is one of the few systems of medicine developed in ancient times that is still widely practiced in modern times a such it if open to the criticism that its conceptual basis is obsolete and that its contemporary practitioners have not taken account of the development of modern medicine. Responses to this situation led to an impassioned debate in India during the early decades of the twentieth century, between proponents of unchanging tradition and those who thought Ayurveda should modernize and syncretize." [5]

Naturopathy or naturopathic medicine is a form of alternative medicine that employs an array of pseudoscientific practices branched as "natural", "noninvasive", and as promoting "self-healing". The ideology and methods of naturopathy are based on Vitalism and Flok medicine, rather than evidence-based medicine.

The term "naturopathy" was created "natura" and "pathos" to suggest natural healing." [6]

Naturopathy claim the ancient Greek. "Father of medicine", Hippocrates as that first advocate of naturopathic medicine before the term existed

Naturopath represent a diverse group of practitioners they can be categorized into three groups:

1- Those with a government issued a licences.
2- Those who practice outside of an official status.
3- Those who are primarily another kind of health professional who also practices naturopathy.

In India naturopathy is overseen by the department of Ayurveda; Yoga and Naturopathy, Unnani, Siddha and Homeopathy. Yog is a group of physical, mental and spiritual practices or disciplines which organized in ancient India 'Yoga' is one of the six Orthodox school of Hindu philosophy.[7]

There is a broad variety of Yoga School, practices and goals among the mopt well known type of yoga are Hatha Yoga and Raj Yoga. Yoga is a discipline to improve or develop one's inherent power in a balanced manner. It offers the means to attain complete self-realization. The literal meaning of uniting the individual spirit with the universal spirit of God. According to Maharishi Patanjali, Yoga is the suppression of modifications of the mind. [8]

Yoga and Ayurveda are two inter-related branches of the same great tree of Vedic knowledge that encompasses all of human life the entire universe. In this regard, it is important of understand the respective roles of Ayurveda and Yoga in the Vedic system. Yoga and Ayurveda are not merely two separate but related healing disciplines of India. Each has its unique place and function, but each overlap into the other on various levels.

Vedic knowledge is the ancient mantic science of the seers and yogis of India designed to show us the inner workings of the universe and of our own consciousness, leading us ultimately to the state of Self-realization and liberation from the cycle of birth and death. To this end, it has given us not only spiritual disciplines but has touched all aspects of healing, science, art, and culture.

Ayurveda is one of the four Upavedas or secondary Vedic teachings, along with Gandharva Veda (music), Sthapatya Veda (directional science), and Dhanur Veda (martial arts). These Upavedas apply Vedic knowledge along specific lines to supplement the Vedic quest for wholeness and liberation. Ayurveda is probably the most important of these because it addresses all aspects of healing and well-being for body and mind. [9]

It is important to reintegrate Yoga Ayurveda & Naturopathy in order to bring out the full healing and spiritual potential of each. Bringing Ayurveda into Yoga provides a yogic and Vedic system of medicine to allow for the full healing application of all aspects of Yoga. It provides a diagnosis and treatment in harmony with Yoga philosophy, as well as a diet and herbal treatment that follows the spiritual approach of Yoga. Bringing Yoga into Ayurveda adds a spiritual and psychological dimension to Ayurvedic treatment, without which Ayurveda tends to get reduced to a physical model in which its full Vedic healing powers cannot be easily realized.

Ayurveda provides the appropriate life - style recommendations for Yoga practice, as well as the background to unfold the full healing potential of all aspects of Yoga. Yoga provides the spiritual and psychological basis for Ayurveda and its applications." [10]

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DEFINITION IN CLASSIC INDIAN TEXTS

The term yoga has been defined in various ways in the many different Indian Philosophical and religious traditions.

Source Text	Definition of Yoga
Katha Upanishad	"When the five senses, along with the mind, remain still and the intellect is not active, that is known as the highest state. They consider yoga to be firm restraint of the senses. T hen one become undistracted for yoga is the arising and the passing away"
Bhagavad Gita	"Yoga is said to be equanimity" "Yoga is skill in action" "Know that which is called yoga to be separation from contact with suffering"
Yogacarabhumi Sravakabhumi	"Yoga is fourfold: faith, aspiration, perseverance and means"
Yoga Sutras of Patanjali	"Yoga is the suppression of the activities of the mind"
Vaisesika stra	"Pleasure and suffering arise as a result of the drawing together of the sense organs, the mind and objects. When that does not happen because the mind is in the self, there is no pleasure or suffering for one who is embodied. That is yoga"
Kaundinya's Pancarthabhasya on the Pasupatasutra	"In this system, yoga is the union of the self and the Lord"
Linga Purana	"By the word 'yoga' is meant nirvana, the condition of Siva".
Brahmasutra-bhasya of Adi Shankara	" It is said in the treaties on yoga; 'Yoga is the means of perceiving reality".
Yogabija	" The union of apana and prana, one's own rajas and semen, the sun and moon, the individual soul and the supreme soul, and in the same way the union of all dualities, is called yoga".

The ultimate goal of Yoga is moksha (liberation), although the exact definition of what form this takes depends on the philosophical or theological system with which it is conjugated.

According to Jacobsen, "Yoga has five principal meanings;

1. Yoga, as a disciplined method for attaining a goal;
2. Yoga, as techniques of controlling the body and the mind;

3. Yoga, as a name of one of the schools or systems of philosophy (darsana);
4. Yoga, in connection with other words, such as "hatha-, mantra-, and laya-," referring to traditions specializing in particular techniques of yoga;
5. Yoga, as the goal of Yoga practice is found in Hindu texts such as the Bhaga vad Gita and Yogasutras, in a number of Buddhist Mahayana works, as well as Jain texts [13].

Yoga, as the raising and expansion of consciousness from oneself to being coextensive with everyone and everything; these are discussed in sources such as in Hinduism Vedic literature and its Epic lvfahabharata, Jainism Prafamaratiprakarana, and Buddhist Nikaya texts; Yoga, as a path to omniscience and enlightened consciousness enabling one to comprehend the impermanent (illusive, delusive) and permanent (true, transcendent) reality; examples are found in Hinduism Nx wa and Vaisesika school texts as well as Buddhism Madhyamaka texts, but in different ways; Yoga, as a technique for entering into other bodies, generating multiple bodies, and the attainment of other supernatural accomplishments; these are, states White, described in Tantric literature of Hinduism and Buddhism, as well as the Buddhist Samafifiaphalasutta; James Mallinson, however, disagrees and suggests that such fringe practices are far removed from the mainstream Yoga's goal as meditation-driven means to liberation in Indian religions." [14]

Patanjali's writing also became the basis for a system referred to as "Ashtanga Yoga" ("Eight Limbed Yoga"). This eight-limbed concept is derived from the 29th Sutra of the Book 2 of Yoga Sutras. They are: Yama (The five "abstentions"): Ahimsa (Non-violence, non-harming other living beings), Satya (truthfulness, non-falsehood), Asteya (non-stealing), BrahmacharTI! (celibacy, fidelity to one's partner), and Aparigraha (non-avarice, non-possessiveness).

1 Niyama (The five "observances"): Sauca (purity, clearness of mind, speech and body),
2 Santosha (contentment, acceptance of others and of one's circumstances), Tapas (persistent meditation, perseverance, austerity), Svadhyaya (study of self, self-reflection, study of Vedas), and Ishvara-Pranidhana (contemplation of God/Supreme Being/True Self).
3 Asana: Literally means "seat", and in Patanjali's Sutras refers to the seated position used for meditation.
4 Pranavama ("Breath exercises"): Prana, breath, "ayama", to "stretch, extend, restrain, stop".
5 P ra n ·ahara ("Abstraction "): Withdrawal of the sense organs from external objects.
6 D hara n a ("Concentration"): Fixing the attention on a single object.
7 Dh ya na ("Meditation"): Intense contemplation of the nature of the object of meditation.
8. Sa madhi ("Liberation"): merging consciousness with the object of meditation.

Over the last few decades, popularity of Ayurveda has increased several folds not only in India but abroad as well. More than 200 Universities throughout the world are now running the courses of Ayurveda. The situation of Ayurveda in its native country, that is, India, is suffering with dichotomy of thoughts. There are two streams of scholars of Ayurveda. One is those who believe in the principle of aptopadesh and are strong supporters of Ayurveda in its original form. They also believe that their faith on Ayurveda and its products is validated by the fact that despite onslaughts by Mughals and Britishers, the system has survived due to its own inherent strengths and fundamental principles. This perception convinced them to believe that there is no need for scientific validation of Ayurveda or its products because they feel that usefulness of Ayurvedic products can always be substantiated on the basis of their traditional use. This thinking is exhibited by current Indian regulations as well, for example, vide Gazette Notification dated." [15]

August, 2010, issued by the Ministry of Health and Family Welfare, Department of AYUSH, New Delhi, giving the conditions of license, classical Ayurvedic medicines have been exempted from both safety and efficacy studies. On the contrary, there is a stream of stakeholders and equally strong supporters of Ayurveda who believe that although whatever has been written in the ancient Ayurvedic text books might be correct, there is a need to understand that for over thousands of years geographies, environment, weather conditions, and soil composition have changed so much, that chances of mutation in the medicinal plants also cannot be ruled out. This stream believes, therefore, that there is a need for scientific scrutiny and validation of ancient Ayurvedic claims in the language that is understood by today's world with scientific temper." [16]

Earlier Vaidyas were preparing the medicines at a small scale for their patients in limited Yolumes. _ ow the advent of commercialization has brought with it the need for ensuring the. mechanisms of consistency of raw material from lot to lot and ensuring batch to batch consistency to provide the same efficacy of the Ayurvedic products over a period of time. Probabl y, understanding the requirements of enacting batch to batch consistency, Ayurvedic Pharmacopoeia of India was constituted with a view to lay standards for raw materials and finished products. Pharmacopoeia is a book of standards providing the tests of purity, strength, and accuracy. The Ayurvedic Pharmacopoeia of India has been relying on various Ayurvedic organoleptic, physicochemical and pharmacological attributes of herbs, namely, Rasa, Guna, Virya, Vipaka, and Prabhava. For centuries, the proponents of Ayurveda have also been relying on these various attributes of herbs. However, although Ayurvedic Pharmacopoeia of India has given Rasa, Guna, Virya, Vipaka, and in certain cases Prabhava of herbs, it has not given any standard test procedures to evaluate the same thus mentioning of these Ayurvedic attributes redundant for Pharmacopoeia. However, it has given the standard test procedures for other physicochemical parameters, chromatographic tests, assays, heavy metal tests, and so on:" [17]

To the best of our knowledge after 16/ 17 century, that is, after Bhavprakash, Indian Ayurvedic

specialists have hardly provided Rasa, Guna, Virya, Vipaka, and Prabhava of any new medicinal herb. This brings us to a debatable point of the usefulness of Ayurvedic attributes like Rasa, Guna, Virya, Vipaka, and Prabhava of Ayurvedic medicinal plants in the present-day scientific context. Today we are talking about the standardization of crude herbs, extracts and finished products with the modern analytical tools like HPLC, HPTLC, GC, estimation of functional" [18]. groups, marker compounds and estimation of biologically active compounds. Under these circumstances, we have already deviated from basic Ayurvedic principles." [19]

The dichotomy of thoughts and diversion of views on Ayurveda have further been strengthened recently by a survey (Kishor Patwardhan et al.: Global Challenges of Graduate level Ayurvedic education: A survey: International Journal of Ayurveda Research, Jan-Mar 2010, Vol 1, Issue 1) conducted by Department of Sharir Kriya and Department of Community Medicine, Banaras Hindu University, Varanasi, wherein a questionnaire was filled by teachers working in CCIM recognized Ayurvedic College, Post graduate students registered for MD (Ay) or MS (Ay) courses and students of BAMS who have passed the III Professional BAMS examination. As per this survey the data collected from across the country showed a strong tendency toward agreement that the issues related to safety profile and standardization of Ayurvedic products are serious ones. Also there is a general tendency toward agreement that Ayurvedic academicians do not figure anywhere in authoring the scientific and evidence-based papers in reputed international journals and they do not voluntarily participate in international platforms to present their research data. The study also suggested that Ayurvedic academicians do not follow international standards while planning the protocols of research projects and while writing research reports. A significant number of participants in the study agreed that no standard international indexed and peer-reviewed journals are published by Ayurvedic institutions making it difficult for Ayurvedic researches to have glob groups, marker compounds and estimation of biologically active compounds. Under these circumstances, we have already deviated from basic Ayurvedic principles." [20]. Clarified butter and medicated oils are used in the oleation process. Swedan (sweating) is brough t about by exposure to steam for particular areas of treatment of the body. Forced emesis or vamana is brought about by adm i nistration of decoction of liquorice, honey with a few hours of prior admi nistration of curd and rice.These substances are believed to cause elevation in the emesis effect. The Virechana, or laxative therapy is carried out by administration of herbs and liq uids like senna.cow milk, psyllium seed, and castor oil. The enemas used in Pancha karma can be prepared from medicated oils or decoction of herbs like sesame or anise." [21]

In practice. Ayurveda has eight disciplin es cailed as "Ashtanga Ay urveda". They are Kayachikitsa (internal medicine treatment), Bhootavidya (treatment of psychological disorders), Kaumar Bhritya (pediatric treatment), Rasayana (study of geriatrics). Vajikarana (treatm ent through aphrodisiacs and eugenics), Sha/ya (su rgical treatm ent), Shalakya (otorhinolaryngological and ophthal mological treatm ent), Agad a Tantra (toxicological studies)." [22]. With a rich knowledge of plants, minerals and animal-based products, and the above based principles of doctri ne, Ayurveda has achieved its widespread acceptance globally:

ALLIED SYSTEMS OF MEDICINE IN AYURVEDA - A BRIEF OVERVIEW

India has a rich history of traditional system of medicine based upon six systems, out of which Ayurveda stands to be the most ancient, most widely accepted, practiced and nourished indigenous system of medicine. The other allied systems of medicine in India are Unani, Siddha, Homeopathy, Yoga and Naturopath y. Ayurveda is the most dominant system amongst the other Indian systems of medicine and finds its prevalence globally since centuries. In this paper. we have restricted the detailed discussion of various aspects of Indian systems of Medicine (ISM) to Ayurveda alone, and only a comprehensive overview of the other systems is provided in the text. After Ayurveda, the Siddha, Homeopathy and Una n i system of medicine are widely used. Naturopathy is still developing and in future it may emerge as a nourished system of medicine. Yoga, is a system of allied medicine that deals with physical, mental and spiritual state of an individual." [23]

The Sirldlla system of medicine is based upon the principle similar to Ayurveda considering that the human body is constituted from the five elements of the Universe like the pancha mahab-hootas. Along with these elements Siddha system considers that the physical, moral and physiological well-being of an individual is governed by 96 factors. These 96 factors include perception, speech, diagnosis of pulse etc. Perception is commonly used determinant for treatment of psychosomatic system with the help of minerals, metals and to a lesser extent some plant products. Siddha system uses many preparations of plant and mineral origin in powder form, prepared through various procedures including calcinations [24].

Unani system of medicine originated in Greece and was intro duced by Hippocrates; a famous philosopher and physician during the 460-366 BC period. Hippocrates laid down the "humoral theory" for treatment of diseases and describes the wet and dry characteristic of each humor that constitutes the human body. This system of medici ne was introduced in India by the Arabs and it grew stronger when some scholars and physicians of Unani system need to India after invasion of Persia by the Mongols. Since then, this system of medicine has made a firm footing in India and is recognized by the Indian government for clinical practice and research funding. The plants-based formulations like oils, tinctures, powders and ointments are used in treatment [25].

Homeopathy was brought into practice by Dr. Samuel Hahnemann, who was a German physician in the mid-17th and 18th century. 'Homeopathy is based upon the laws of "immunological memory" and "memory of water" and the similarities in the pharmacological aspects of the drug and the disease. It utilizes medicines which produce symptoms similar to that of the disease for treatment of the pathological condition initially by producing or aggravating the pathological conditions and then treating it. For more than a century this system is been practiced in India and has formed an integral part of the Indian traditional system of medicine. It is recognized by the government of India and there are various institutions, research centers and regulatory bodies that help propagation of this system. In homeopathy the mother tinctures or aqueous extracts of the drugs plants, animal origin substances, venoms and minerals) are diluted and successes

(specific method of mixing or shaking) as per Pharmacopeia methods to prepare the formulations of very low potencies [26].

Yoga originated in India in ancient times. Through its therapies and diagnosis based on pulse and analysis of Tridoslm state of an individual, it suggests meditative exercises and life style management to obtain tranquility and improve health. The Asanas (postures) of Yoga are applied in various clinical and nonclinical conditions for curing various physical and emotional conditions. Naturopathy, also termed as naturopathic medicine originated in Germany in the 19th century and today it is practiced in several countries. It is not an ancient system of medicine but some practitioners who practice traditional medicine sometimes use Naturopathy in combination to the major system. The Naturopathic system is based upon using the curative power of nature in com bination with the traditional and modern techniques to help restore good health. Homeopathy, herbal formulations, hydro therapy are some of the treatment methods used by this system.

CURRENT STATUS OF AYURVEDA AND PERSPECTIVES FOR ITS FUTURE APPLICATIONS

In the recent decades, Ayurveda has experienced a considerable shift in its paradigm and a significant change in the outlook of re searchers, towards its applications has occurred. The therapeutic principles of Ayurveda focus on prakriti and tridos/Jas, and these principles explain that every individual has his unique constitution called as prakriti. Prakriti determines the characteristic response of each individual to medications, environmental conditions and dietary factors. 'Ayurgenomics' a recently introduced research field, bridges this gap between genomics and Ayurveda and serves as an aid in understanding of inter-individual differences in responses to therapies in various diseases. It especially emphasizes on studying inter-individual variances in patients from identical ethnic backgrounds. TSMs are now been looked upon for recourse to some limitations faced by western medicine, such as the need for individualized therapies, potential side effects and lack of desired therapeutic efficacy,

Ratti et al. have published several studies correlating the concept of prakriti in Ayurveda to present-day science. A report indicating the correlation of dominant prakriti with the Body Mass Index (BMI) and place of birth in individuals was published . Studies involving subjects of various prakriti types viz. Vata, Pitta and Kapha, were carried out to identify molecular differences that affect susceptibility and responses of individuals to various environmental or disease conditions. A classification method for human population, with respect to DNA methylation signatures is reported based upon traditional Ayurveda concept of prakriti. In a study involving genome-wide SNP (single nucleotide polymorphism) in 262 male individuals from three different prakritis, it was found that PGM I gene is associated with energy production. PGMI was found to be more homogeneous in Pitta pralt:riti, than the Kapha and Vata prakriti."27

An integration of the knowledge of modern analytical techniques with a broader perspective for applications of Ayurveda principles can help in its wider acceptance globally. There is an increasing need of proving and fostering the scientific basis of the principles of Ayurveda, to keep this age old valuable system of medicine. as a living tradition in future.

Ayurveda has a rich history; however there were certain drawbacks in approaches towards it, which inhibited its growth like the western system of medicine. The active components of the herbal drugs prescribed were not known, and even today many drugs still need further exploration for their active constituent characterization and elucidation of the mechanism of action. Even after decades of applying advanced analytical techniques for drug analysis, herbal drugs still face some drawbacks. The administration of combinations of several drugs adds to the complexity of study of the activity of these medications. A merit of traditional medicine systems as discussed earlier is that, they consider every individual as the prime focus of treatment rather than the disease. But this factor also possesses a hurdle to the applicability of medications on a general population basis. Several issues like. the variation in the potency due to difference in species. absence of an integrated coding for every species used commonly in TSMs, varying geographical location of growth, and incorrect identification and adulteration of drugs, non-uniform quality control standards. differences in processing methods, direct an alarming need towards comparative study of drugs used in both these systems of medicine.

REFERENCES

1. Popularum, MichaclAlexander (2008-01-01). Trends undBeschaftigungsfelder im Gesundheits und wellaess Tourismus: B erufsentwichlung, Kompetenzpro file und Qualifizreningsbedurf in wellnes bezogene Freizelt - und Gesundheitsberufen (in German). LIT Verlag Munster, ISBN 9783825813680.
2. Zysk, Kenneth G. (1999). " Mythology and the Brahmonization of Indian medicine : Transforming for svensk etymologisk forskning, Goteborgs universitle. pp. 125-145ISBN 91 630-7978-x.
3. Bhishagratna, Kaviraj Kunjalal (1907). An English Translation of the Sushruta Samhitta Based on Original Sanskrit text. Calcatta: K. K. Bhishagratna. p. 1. Retrieved 16 October 2015.
4. Dhanvantri (2010). InEncyclopaedia Britannica. Retrieved 4 August 2010, form Encyclopaedia Britannica Online. http//www.britannica.com.
5. Acarya, Yadava Trivikramatmaja, ed (1945). "Satrashana 1.7.9" Sutsrutasamhitta. Bombay Nirayasagara Press. pp. 2-3.
6. Acarya, Yadava Trivikramamaja ed (1941). "Sutrasthana 30.28". The Carakasamhitta of Caraka, with the commentary by Cokrapanidatta edited by) Yadavasaran Trivikarama Acarva. Bombay ; Nirnayasagara Press p. 189.
7. Wujastyk, Dommik (2003) " Indian Medicine" In flood, Gavin. T he Blackwell Companion to Hindusim. Oxford: Blackwell. p. 394. ISBN 975-1402132510.

8. Sharma, Priya Vr (1999). Sutsruta With English Translation of text.....1. Varanasi; Chaukhambha Visvabharati. pp-7-11
9. Gregon P. Field Religous Therapeutics; Body and Health in Yoga, Ayurveda, and Tantra. SUNY Press p. 30 ISBN 9750791449125.
10. Bhishagratna vtvarajKunja Lal (1907). An English Translation of the Sustruta Samihita Based Original Sanskrit Text. 1. Calcutta. The Author.
11. Greaorv P. Field, Religouss Theraoeutics : Body and Health in Yoga, Ayurveda and Tantra. SUNY Press. p. 36 ISBN 9780791449158.
12. Chopra 2003, p. 79 Yog.
13. Kimberly Lau (2000), New Age Capitalism, University of Pennsylvania Press, ISBN 978-0812217292, page 100.
14. Mallinson, James; Singleton, Mark, Roots of Yoga, Penguin Classics, 2017, pp. 17-23.
15. Jacobsen, p. 4.
16. James Lochtefeld, "Yama (2)", The Illustrated Encyclopedia of Hinduism, Vol. 2: N-2, Rosen Publishing, ISBN 978-0-8239-3179-8, page 777.
17. N Tummers (2009), Teaching Yoga for Life, ISBN 978-0-7360-7016-4, page 16-17.
18. Lad V. Ayurveda. The Science of Self-healing. A practical Guide New Delhi. India; Motital Banarasidas Publishers Private Limited; 2002.
19. Mukherjee D. Ranade S. Ayurveda, Nature's Medicine, USA: Lotus Press; 2001.
Campbell A. The origins of classical homoeopathy? Complement. Then Med 1999:7:76-32.
20. NIH US. Naturopathy: An Introduction, National Institute of Health. USA: Department of Health and Human Services; 2012.http:://nccam.nih.gov
21. Gupta P. Pharmacogentetics. Pharamcogenomics and ayurgenomics for personalized medicine; a paradigm still, Indian] Pharm Sci. 2015;77;135 - 141.
22. Rao G. Integrative approach to health: challenges and opportunities. J Ayurveda Integer Med 2015;6;215-219.
23. Rotti H. Raval R. Anchan S. et al. Determinants of Prakriti, the human constitution types of Indian traditional medicine and its correlation with contemporary Science. J Ayurveda integr Med. 2014;5;167-175
24. Rotti H. Mallya S. Kabekkodu S. DNA methylation analysis of phenotype specific stratified Indian population. J Transl Med. 2015;13;151.
25. Govindaraj P. Nizamuddin S. Sharath A. et al. Genome-wide analysis correlates ayurveda prakriti. Sci. Rep. 2015;5;15786.
26. Ravishankar B. SHukla V. Indian systems of medicine: a brief profile. Afr J. Tradir Complement Altern Med 2007;3;319-337.
27. Premila M. Ayurveda Botanical - A Clinical Guide to the Health plants of Traditional Indian Medicine. Binghamto. New York: The Haworth Press, Inc.: 2006.

SOCIAL MARKETING: A SHORT REVIEW

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ABSTRACT

Social marketing management encompasses brand building, loyalty, customer base and much more. Social marketing is the use of marketing principles and techniques to effect behavioral change. It is a concept, process, and application for understanding who people are, what they desire, and then organizing the creation, communication, and delivery of products and services to meet their desires as well as the needs of society and solve serious social problems. Social marketing permits an online business to attract popularity among the online audience. Social marketing campaign is all about distribution of information. To provide a road map for researchers interested in this area, we discuss the major motivations that prior researchers have suggested should influence the social marketing process, as well as suggest some motivations that are less commonly studied in this area. Most research on social marketing is done with data that is inferred. Most models of information diffusion through social media are based on the idea of homogeneity in human response. Interact within social communities for the benefit of everyone, not just yourself, and the results can be tremendous. The most important term is 'social' – be social, be a part of the community, and the results will speak for society**.** We try to offer explicit solutions for future research to adopt to overcome these problems.

Keywords: Social marketing, Brand Building, Loyalty, Homogeneity

INTRODUCTION

Social marketing was "born" as a discipline in the 1970s, when Philip Kotler and Gerald Zaltman realized that the same marketing principles that were being used to sell products to consumers could be used to "sell" ideas, attitudes and behaviors. Kotler and Andreasen define social marketing as "differing from other areas of marketing only with respect to the objectives of the marketer and his or her organization. Social marketing seeks to influence social behaviors not to benefit the marketer, but to benefit the target audience and the general society." Social

marketing works to help people change their behaviors to become healthier or to improve society or the world in some way. On the continuum of methods to bring about health and social change are the two used most often: education, which uses rational facts to persuade people to change their behaviors, and coercion, which forces people to adopt a behavior under threat of penalty for not doing so. Somewhere in between those two points lies social marketing -- the use of commercial marketing methods to persuade people to change their behaviors for reasons that go beyond the rational facts to appeal to their core values. So often, people know exactly what they should be doing and why, and they still disregard what their head tells them. Social marketing adds heart back into the mix and utilizes emotional appeals to resonate with the part of the brain that determines what people actually do, as opposed to what they know they should do.

WHAT SOCIAL MARKETING

A process that uses commercial marketing techniques to promote the adoption of positive health or social behaviors. An approach that benefits the people who are adopting the behaviors or society as a whole, rather than the organization doing the marketing.

Using marketing techniques proven in the commercial sector to address social issues in the public sector has had a profound positive impact. Social marketing is an approach to influencing healthy behaviors and has roots in several behavior change theories familiar to public health. The Exchange Theory, the Theory of Planned Behavior, and the Health Belief Model all play an important part in social marketing. Social marketing is also informed by social psychology, marketing science, and human reaction to messages. Its campaigns seek to rigorously segment the market to target specific populations and then use the "marketing mix" (the 4 P's of marketing: place, price, product, and promotion) to develop unique strategies for each to achieve the desired behavior change.

''In social marketing the product is often information designed to bring about attitudinal and behavioral change''.

USES OF SOCIAL MARKETING

- 60 million consumers now use new media to share their health experiences online
- 216 US hospitals use social media
- 142 US hospitals have You Tube channels
- 132 US hospitals maintain Twitter accounts
- 83 US hospitals have Facebook pages
- Approximately 1,200 Facebook communities advocate for cures for chronic illnesses

- 72% of e-patients search for medical information right before or after a doctor's visit
- 93% of e-patients say the Internet has made it possible to get the medical information they need.

BLOG MARKETING

Blogging refers to actively creating your own blogs and participating in sharing your views on the related blogs of the industry, by posting comments to build your identity and brand awareness of your product or services.

FORUM MARKETING

Forum marketing is an art of sharing or gaining knowledge of the required subject by becoming part of the most active forums that belong your industry which creates presence of your brand in the community and increases targeted traffic or leads to your website.

ARTICLE WRITING AND SUBMISSIONS

Writing articles on the subject of your services and submitting the same at related portals is a very effective tool to spread your services and creating a brand value for your company. We help our clients by writing and submitting well researched articles thus increasing their Google page rank and targeted traffic to your website.

ISSUE OF PRESS RELEASES

Writing and submission of effective, informative and creative press releases is a very powerful tool. New Delhi Digital Works helps you create Press releases and submit the press releases online on top news portals.

SOCIAL MARKETING (SM)

Is a form of online marketing which seeks to achieve branding, marketing communication goals, online sales inquiries and traffic on site through the participation in various social media site networks such as Facebook, Bebo, MySpace, Dailymotion, YouTube, Hi5, Gather.com, orkut, social web applications (webapps) such as reddit, Digg, Squidoo, Last.fm, Stumbleupon, Flickr, iLike, Wikipedia, Twitter, ePinions, Eventful and others as well as within 3D virtual worlds such as ActiveWorlds, Move, Second Life and There.com.

The goals of each **Social Marketing** (SM) program or campaign will differ for every organization or business, however most will involve some form of building an idea or brand awareness, increasing visibility on web, encouraging brand feedback and dialogue, enhance site traffic as well as to possibly sell a product or service. **Social Marketing** (SM) may also include online reputation or brand management.

Social media includes websites where news, press releases, photos, blogs, videos, Rss feeds and podcasts are hosted via websites through user submission. Typically, these websites include mechanisms to allow users to vote on content which makes users submitted content more or less popular.

Social Marketing (SM) is a set of techniques for generating publicity through social media, user groups and community websites. Social media marketing has provided businesses the opportunity to connect with their clients in a more personal and cost-effective manner.

Whether you are looking to support existing customers, acquire new customers or just want to keep them informed, social media services are all you need to keep your business at the top of this marketing opportunity.

- Social networking accounts for 11% of all time spent online (Source: The Nielsen Company).
- A third of adults post at least once a week to social sites such as Facebook and Twitter (Source: Forrester).
- A quarter of adults publishes a blog and uploads video/audio they created (Source: Forrester).
- Nearly 60% adults maintain a profile on a social networking site (Source: Forrester).
- 70% adults read blogs, tweets and watch videos (Source: Forrester).

THE RATIONALE OF THE STUDY

How Can Social Marketing Benefit Business?

Social media websites like Facebook, Twitter and YouTube are one of the most visited sites. Not only these websites attract a very high number of people from all walks of life, these are also considered to be highly trusted sources of information and have the power to influence user behavior like no other.

Social Media can be used to connect with customers, manage your reputation and encourage brand loyalty. Social Media Marketing is the new approach to Word-Of-Mouth marketing that allows you to efficiently spread the word and generate an intense amount of interest for a relatively unknown product or service.

CHALLENGES OF SOCIAL MARKETING

Social media often meets with skepticism and resistance inside an organization

This reaction is normal to anything radically new. I suggest that you present social marketing to your colleagues as an experiment that will complement conventional multichannel marketing if successful, not replace it. Results aren't achieved nearly as quickly with social media as they are with direct marketing techniques. When planning an experiment or production, be careful about forming unrealistic timing expectations.

The social media learning curve is very steep.

Few books or courses teach social marketing, and much of the information available online is unreliable or even biased. I recommend that you seek experienced outside professional help to chart your social marketing path, set policy and facilitate implementation.

It's easy to spin wheels and waste lots of time going nowhere.

There are way too many interesting social networking sites and lots of hype surrounding them. Be sure to read Social Media Targeting for People and Businesses.

Social marketing is still evolving rapidly and tends to be a moving target.

While social media is global, participation in non-English speaking countries is stilted towards English speaking demographics such as students and upper classes. Remain alert to changes in technology and new opportunities that are bound to occur.

Social marketing can work against a brand, not just for it — and can be very unforgiving.

However, this is true even if companies elect not to use it for marketing or for their public relations. It's therefore better to be proactive than reactive.

CONCLUSION

Social Marketing can benefit in the future include obesity, water security, malaria, environmentalism. Social marketing has a proven track record in changing both dietary and exercise behavior, and many are hopeful that strategic health marketing can combat the obesity epidemic. To reach its full potential however, social marketing must have a long-term approach. Oftentimes political short-termism limits the ability for government to enact permanent changes in public health. The government and public health organizations should match the kind of long-term, high impact branding that corporations utilize to sell a product. Public health does not change overnight, and social marketing needs to plan accordingly in order to impact social behavior. Local efforts to promote recycling or exercise are also opportunities for social marketing to have a role.

REFERENCES

1. Cooper, L.Z., Larson, H.J. & Katz, S.L. (2008) Protecting public trust in immunization: Pediatrics, 122(1), 149-153.
2. Kotler, P., & Lee, N. (2008). Social marketing: Influencing behaviors for good. Sage.
3. Smith, R. (2002) The discomfort of patient power: BMJ, 324(7336):497-498.
4. Kane, M. A. (1998). Commentary: public perception and the safety of immunization. Vaccine, 16(Suppl), S73-S75.
5. Eisenberg, D. M., Davis, R. B., Ettner, S. L., Appel, S., Wilkey, S., Van Rompay, M., & Kessler, R. C. (1998). Trends in alternative medicine use in the United States, 1990-1997: results of a follow-up national survey. Jama, 280(18), 1569-1575.
6. Freed, G. L., Katz, S. L., & Clark, S. J. (1996). Safety of vaccinations: Miss America, the media, and public health. Jama, 276(23), 1869-1872.
7. Offit, P. A. (2008). Vaccines and autism revisited—the Hannah Poling case. New England Journal of Medicine, 358(20), 2089-2091.
8. Kotler, P., & Zaltman, G. (1971). Social marketing: an approach to planned social change. Journal of marketing, 35(3), 3-12.

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