



**TATA INSTITUTE OF SOCIAL SCIENCES**  
**SCHOOL OF SKILL EDUCATION**

# नयन बर

**FROM SKILL TO LIVELIHOOD**

**Biannual Skill Magazine**

Issue No.2  
December 2023



**Exploring Healthcare Excellence:  
A Skill Odyssey**

## About the Title

# ह्यह्वर

From skill to livelihood

Hunar with R symbolically written as Rs. indicates the journey from skill to livelihood.

The phrase suggests a progression or transition from having a latent skill, to unleashing it and using the same as a means of earning a livelihood. It implies that the skill is being utilized for financial gain or as a profession thereby accelerating the economy of the nation.

## EDITORIAL NOTE

Welcome to the second edition of Skill Magazine - Hunar, Exploring Healthcare Excellence: A Skill Odyssey, where we invite you to join us on an exhilarating journey through the multifaceted realm of abilities that intricately shape our personal, academic, and professional spheres.

In a world constantly evolving with technological advancements, global interconnectedness, and dynamic workplace requirements, the significance of honing skills has never been more pronounced.

In this issue, we immerse into the concept of “Exploring Healthcare Excellence: A Skill Odyssey.”

The latest edition of our Skill Magazine, delves into the dynamic realm of healthcare skills that are shaping the future of the industry. We embark on a journey through the intricate tapestry of medical expertise, from clinical proficiency to cutting-edge healthcare technologies and compassionate patient care.

The stories of skilled healthcare professionals who navigate the challenges of our ever-evolving world, showcasing resilience, innovation, and a commitment to excellence are discovered. The diverse skill sets required in healthcare management and specialized clinical fields have been uncovered.

As we navigate the complexities of a global health landscape, this edition celebrates the significance of skill education in healthcare, highlighting its pivotal role in ensuring quality, accessibility, and sustainability in healthcare services. Join us on this Skill Odyssey as we explore the transformative power of skills in advancing the healthcare sector and ultimately, enhancing the well-being of individuals and communities worldwide.

The healthcare sector holds immense significance in skill education due to its critical role in societal well-being and economic development. Skill education in healthcare equips individuals with the competencies needed to deliver quality medical services, ensuring patient safety and satisfaction. As a rapidly evolving field, healthcare demands a diverse range of skills, from clinical expertise to healthcare management, digital health, and patient communication. By investing in healthcare skill education, societies address the shortage of qualified professionals, enhance the overall quality of healthcare services, and contribute to the economic growth associated with a robust and efficient healthcare system. Moreover, skilled healthcare professionals are better positioned to adapt to technological advancements, emerging medical trends, and global health challenges, thereby ensuring the sector’s continued resilience and effectiveness.

Our cover story, “**Emerging Innovative and Good Health Care Practices**” focuses on the ever-evolving landscape of healthcare, innovative practices that are reshaping the industry. From telemedicine and AI-assisted diagnostics to patient-centric care models, these advancements enhance accessibility, efficiency, and overall patient outcomes. Embracing technology and promoting preventive healthcare, these practices mark a paradigm shift towards a more holistic and personalized approach.

The theme also extends to “**Health Care Skill Education and Career Opportunities.**”

The demand for skilled professionals in healthcare has never been greater. Skill education programmes cater to a spectrum of roles, from specialized medical fields to healthcare management, nursing, and digital health.

These programmes not only equip individuals with clinical expertise but also foster qualities of adaptability and empathy crucial in patient care.

As the healthcare sector continues to expand, diverse and rewarding career opportunities emerge, providing a pathway for individuals to contribute meaningfully to the well-being of communities. Whether in the field of medical technology, healthcare administration, or direct patient care, healthcare skill education opens doors to a multitude of fulfilling and impactful careers.

As we celebrate skill diversity, our "**Kaleidoscope**" section features picture gallery eloquently displaying the accolades, events and vital days celebrated in the healthcare venues covering activities of students who have carved unique paths by leveraging their distinct skill sets. These profiles showcase the transformative power of skills in shaping destinies.

Dive into "**Expressive Threads: Weaving the Tapestry of Thematic Exploration**" as we delve into the cutting-edge trends within healthcare skills, revolutionizing entire industries.

At Skill Magazine, our mission is to empower you with insights, inspiration, and practical knowledge to navigate the ever-changing landscape of skills. As we embark on this enriching journey together, may you find the tools and inspiration needed to not only survive but thrive in a world driven by skill mastery.

Happy Reading!

**Ms. Jayabala Girish ,  
Assistant Professor**

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## FOREWORD



***Prof. Madhushree Sekher,  
Dean, School of Skill Education  
Tata Institute of Social Sciences***

Dear Readers,

It is with great pleasure that I extend my warmest greetings to all of you as we present the second edition of our Skill Magazine. In the dynamic realm of education, the importance of Skill development remains paramount, continually shaping the future.

As the Dean of the School of Skill Education, I am proud to witness the remarkable pursuits of our students and faculty members as they continuously strive for excellence in their chosen fields.

The magazine serves as a testament to the commitment, passion, and hard work invested by our talented individuals who are shaping the future through skill acquisition and application. The articles, features under *Kaleidoscope*, and success stories under *Expressive threads* reflect not only the diverse range of skills cultivated within our School but also the transformative impact these skills have on personal and professional lives.

In an era that demands adaptability and innovation, the School of Skill Education remains dedicated to fostering an environment that nurtures creativity, critical thinking, and practical proficiency. Our students are not just learners; they are contributors to a society that values and thrives on skillful endeavours.

I encourage you to delve into the inspiring narratives and insights shared in this magazine. May it inspire you to embark on your own skill development journey or reinforce your dedication to honing the talents you already possess.

Thank you for your continued support, and I look forward to witnessing the ongoing success stories that emanate from the School of Skill Education.

**Warm regards,  
Prof. Madhushree Sekher,  
Dean, School of Skill Education  
Tata Institute of Social Sciences**

## ACKNOWLEDGEMENT

I extend my heartfelt gratitude to the Dean School of Skill Education, Prof. Madhushree Sekher for her unflinching support and persistent motivation in bringing forth the second edition of Hunar - The skill magazine that explores the healthcare vertical in its thematic issue- Exploring Healthcare Excellence: A Skill Odyssey I express my sincere gratitude to the content team and healthcare team members whose unwavering support and contributions have played a pivotal role in the creation of this edition of Skill Magazine. Their dedication to promoting skill development, invaluable contributions and sharing insights has enriched the content and elevated the magazine to new heights.

Special thanks to our esteemed contributors, students, and subject matter experts for their expertise and passion in exploring the diverse facets of skills. Their thought-provoking articles and in-depth analysis have added depth and substance to the magazine, contributing significantly to its educational value.

I would like to express my appreciation to Dr. Kimnei Leivon , Dr. Aswathy Pillai and Ms. Seema Patil , the editorial team whose commitment to excellence is evident on every page, thank you for your hard work, diligence, and editorial finesse. Your collective efforts have transformed ideas into impactful stories, creating a publication that we are proud to present to our readership . I thank the Academic Facilitators for furnishing the high resolution photographs .

I extend special and sincere thanks to Ms. Seema Patil for offering astounding creative support, for her creative vision has brought the magazine to life. The visual storytelling has enhanced the overall aesthetic and appeal of the Skill Magazine, making it a captivating and visually engaging resource for our readers.

Last but not the least, a sincere thanks to our readers. Your enthusiasm for skill development and lifelong learning fuels our mission to provide valuable and relevant content. We are grateful for your continued support and engagement with Skill Magazine.

Together, we celebrate the spirit of skill mastery and knowledge dissemination. Here's to the pursuit of excellence and the journey of continuous learning!

Warm regards,

Ms. Jayabala Girish

Editor in Chief

Hunar - The Skill Magazine

# **PART I**

## **INTRODUCTION AND TISS SCHOOL OF SKILL EDUCATION JOURNEY**

## **HISTORY AND JOURNEY OF TATA INSTITUTE OF SOCIAL SCIENCES SCHOOL OF SKILL EDUCATION**

Skill education in India is pivotal for fostering employability, economic growth, and innovation. It equips individuals with practical expertise, enhancing their ability to meet industry demands. In a rapidly evolving job market, skill education ensures that the workforce remains adaptable, ultimately contributing to national development and a competitive global presence.

The Government of India has undertaken a significant policy shift under its Ministry of Skill Development and Entrepreneurship (MSDE), signaling a robust commitment to cultivating a skilled and entrepreneurial workforce. This transformative approach reflects a recognition of the pivotal role that skill development plays in the nation's socio-economic progress. The MSDE's initiatives aim to bridge the gap between traditional education and industry requirements, fostering a dynamic environment where individuals can acquire practical expertise and entrepreneurship skills. This policy shift underscores the government's dedication to empowering citizens with the tools necessary to thrive in a rapidly changing global landscape, promoting self-reliance and contributing to India's overarching developmental goals.

Tata Institute of Social Sciences is an institution of excellence in higher education that continually responds to the changing social realities. The focus of TISS is on developing right based perspectives among the students and on applying the knowledge to create sustainable and just society. Common feature of all the courses at TISS is a blend of theoretical knowledge with working in the field and getting first-hand experience.

In December 2011, Tata Institute of Social Sciences (TISS) embarked towards the national skill building initiative by setting up The School of Vocational Education (SVE) now The School of Skill Education (SSE). TISS SSE has emerged as a unique model for the nation for 'skill development through work-integrated training.' Providing an opportunity for formal and structured career progression, a channel for re-kindling the interest of youth in skills and crafts as career in our modern and growing economy was essential, that would also bring dignity of labour to all professions and occupations and create sustainable sources of income for the youth in the country.

In March 2012, TISS signed MoU with All India Council for Technical Education (AICTE) under the aegis of Ministry of Human Resources and Development (MHRD) for incubation of a National Vocational University with a seed grant of INR 10 crores. After a few trials and errors, the School was successful in developing a robust model, with strategic partnership with hundreds of diverse industries to train and employ the skilled youth, thereby ensuring quality skill training.

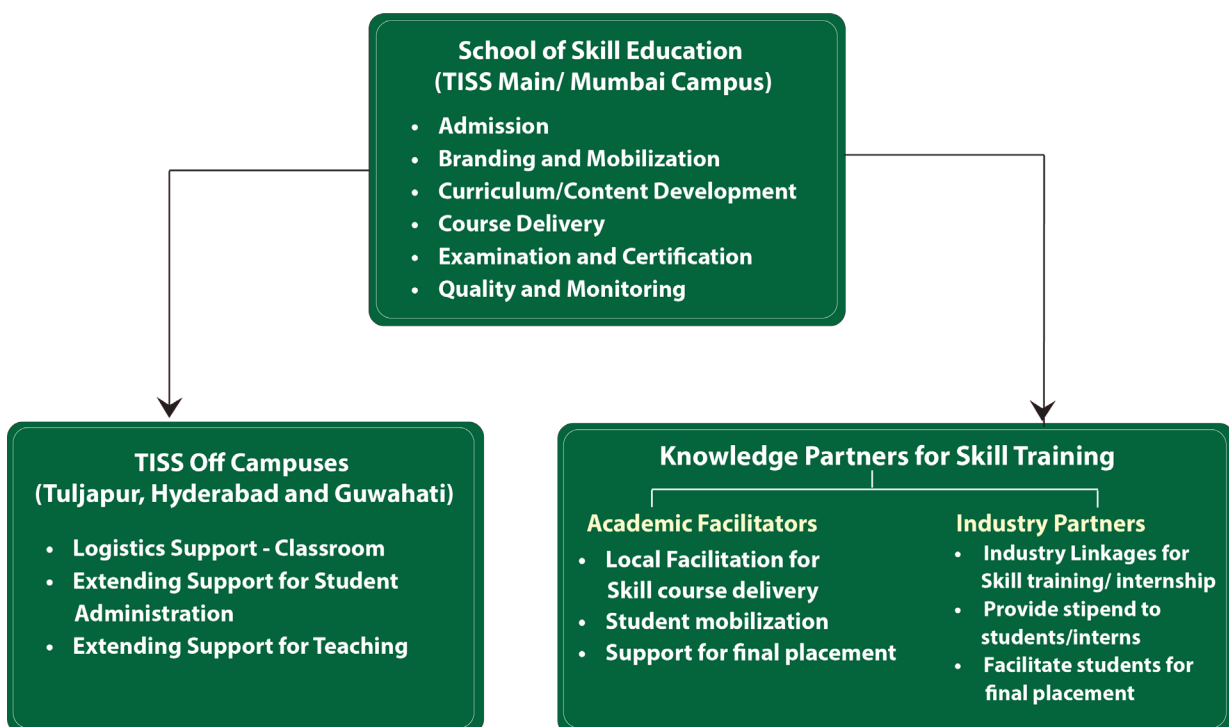
The programmes based on the National Skills Qualification Framework (NSQF) follow the UGC guidelines for Bachelor in skill education. The school was set up and nurtured with financial and substantive support from All India Council for Technical Education (AICTE), that hand held and supported the Institute in its skill development initiative for 5 years. During the project period of 5 years, the School has been successful in demonstrating a cost effective, scalable, sustainable and easily replicable model of imparting job oriented courses at NSQF levels 5, 6 and 7.



At the time of signing the MoU, there was no established model for a skill university. Therefore, the efforts by TISS towards incubation may be regarded as an Action Research Project. The model evolved over a period of time through trials and refinements as the school started working with the initial concept and started getting facilitators to join in this innovative experiment of developing a sustainable model of work integrated training.

The earlier model included 3 types of collaborations for the course delivery. The vertical anchors designed the job-oriented programmes based on the demand in the sector, developed curriculum and content for the same in line with the academic requirements of the University, conducted Train the Trainer for domain trainers. The learning hubs facilitated the classroom training and co-ordinated with Knowledge Partners for Skill training for skill training practical component through on-the-job training (OJT). The knowledge partners for skill training (KPSTs) provided the opportunity to the students for skill training through internships, providing a modest stipend (wherever possible) thereby providing financial assistance to the students. TISS SSE anchored and monitored all functions of the above collaborations and was responsible for the assessment and certification. The number of facilitators steadily increased and in the year 2017, the school had 19 vertical anchors, 184 Academic Facilitators and 330 skill knowledge providers. Over a period of time, this model evolved to include different elements of checks and balances to ensure quality skill education.

Pictorial representation of the current model, explaining the specific role of each stakeholders and their inter-linkages:



## 6 TISS-School of Skill Education

AICTE had given the mandate to TISS through the School to offer certificate and diploma courses in various vocational streams as per the National Skill Qualification Framework (NSQF) under its aegis. For this purpose, TISS had initially adopted the Community College Model wherein the training begins with basic orientation and job skills modules, covering the aspects of the 'World of Work' that the student is going to enter. The model proposed was demand driven and therefore had a high potential for employment. Policy changes permitting, advance degree programmes were also to be offered with potential cross-transfers to academic streams to pursue degree and diploma courses. But due to lack of clarity in the process of granting equivalence (main stream education levels of SSC and HSC) to students enrolling under community college model, the School was unable to cater to the group of school drop-outs. Also, with the UGC scheme of initiating Bachelor programmes through universities and colleges, the School primarily focussed on enrolling only 10 plus 2 level students for vocational courses.

### The Beginning: 2011 to 2013

TISS SSE studied the different skill development initiatives by the Government and non-Government agencies including the National Skill Development Corporation (NSDC) and others. The studies on skill gaps were already available on NSDC and other websites; hence the school did not repeat this exercise for the chosen verticals. Review of international skill development programmes revealed that work integrated training models were highly successful in providing job oriented skill training and could make students job ready at every exit point or by the time they graduate, thus the school adopted the hub and spoke model, re-aligning the same to suit Indian context.

### 2014 - 2015

It was noted that in India, around 90% of the jobs are skill-based whereas in reality only 2% of the population (in the age group of 15-25 years) is enrolled for vocational training as compared to 80% in Europe and 60% in East Asian countries. Another serious problem plaguing the labour market is that access to quality skills training is not the same in all parts of the country, also the demand for skilled manpower is not the same in all states, as it varies in urban and rural locations.

Post identification of the high demand sectors, there was an urgent need to identify and shortlist facilitators that holds experience and expertise related to specific industry vertical. Applications were invited for the role of vertical anchors across identified sectors. Post detailed presentation by each prospect followed by an interview, a call was taken by the panel members about the appointment of vertical anchor for each sector.

Role of the then vertical anchor was

- To conduct skill gap analysis and geographic mapping
- Basis the same suggest the various skills for which courses need to be designed, the types and duration of the courses
- Develop curriculum in line with University guidelines, create content (to be further vetted by TISS SSE empanelled Centre of Excellence and ratified by TISS academic council)

- Identify potential hub partners, facilitate their registration and hand-hold them in the execution of the entire training implementation process
- Conduct train the trainer for the hub domain master trainer before the start of the course. Constantly monitor conduct of training with focus on quality delivery.

Reaching out to every nook and corner of the country is of paramount importance when it comes to skill education. Hence it was important to have a good network pan India across every sector depending upon the geographic mapping. The Academic Facilitators played an important role here.

Student mobilization for skills training courses has been a major concern due to the traditional mind set, low willingness to migrate and low salaries at entry level. The youth had little or no aspiration to join skill development programme, most youth harboured doubts about the benefit of acquiring skills and the value of skill certificates. Consistent and reliable communication at local level was essential to assure the youth the value of skill training and certificates.

A training Academic Facilitators at every location pan India facilitated mobilization of the students and later conduct assessments anchored by TISS SSE. The training Academic Facilitators were companies / institutes running a learning centre with specific classroom infrastructure available in the chosen location and could conduct student training there. It was important that the learning hub had the adequate infrastructure facilities and network of skill knowledge providers to partner within 50 kms radius of its approved premises.

The necessary mechanisms for safeguarding the interests of the students and quality control were in place. A robust and customized ERP (Enterprise resource planning) system was developed and implemented to seamlessly manage the ecosystem, the entire life-cycle of all stakeholders – the numerous collaborations and student life-cycle. It enabled the efficient management of the finances, enrolments, student's data, monitoring of partner activities etc.

The ecosystem also included many other groups of individuals with specific support roles, these entities enabled to manage the operations efficiently.

These included

1. Centre of Excellence (CoEs),
2. Content developers and proof readers,
3. Counsellors,
4. Trainers and assessors for theory and practical training,
5. Exam invigilators,
6. On-site supervisors and many others.

### **Centre of Excellence (CoE):**

These were domain experts from each sector, associated with the school as consultants, senior personnel from industry or academia. They helped the school review the course curriculum, in content vetting, suggesting modifications, if any, interviewing the trainers and examiners, vetting the question banks, etc.

### **Content Development:**

Content development for the various courses in all verticals was a crucial task. It was important to adhere to UGC guidelines in terms of credit distribution as well as NSQF levels. No programmes / courses could be offered unless they were vetted by the CoE and ratified by the academic council of TISS. Before announcing the programme, detailed content in the form of facilitator's guide and Participants' workbook had to be developed. All domain content developed by respective vertical anchor or TISS SSE content developers, post quality check done by CoEs went through plagiarism checks, proof reading and DTP before finalizing for printing. The content was periodically upgraded keeping in view the contemporary standards of the industry.

### **Counselling Services Pan India:**

For most of the students undergoing the work-integrated training, it was the first experience of long hours of work and study, some of them came from rural background with little exposure to city life. They did face some problems of adjustment to this new system of education and work place tensions.

The students were spread out in different locations and therefore it was necessary to have someone representing TISS SSE, with an opportunity for direct communication with the students. With this vision, the school empanelled counsellors in respective hub locations to ensure that we connect with the students to understand their problems, if any, at class or at skill Knowledge Providers.

The empanelled counsellors conducted one session every month covering Life skills topics, which helped in personality development of students and provided an outlet for them to express their concerns, if any. Sessions were developed by TISS SSE counselling team in consultation with senior counsellor from TISS, based on the guidelines provided by WHO. The School had around 48 empanelled counsellors at 55 locations pan India, who conducted an average of 80 to 100 counselling sessions per month across all Facilitation centres.

### Regular Monitoring and Supervision:

With the spread of partners across the country and also dynamic nature of the programme, monitoring and supervision was the key task. 360-degree monitoring mechanism was adopted – e.g., ERP data monitoring for fees and attendance, regular visits by TISS SSE staff, students' feedback through phone calls, reports received from counsellors, visits by vertical anchors, feedbacks from trainers, SKPs, etc.

By the year 2017, the school was able to roll out 25 Bachelor programmes (UG Bachelors), 15 Post graduate diploma programmes, 111 certificates and short term programmes across 19 different sectors namely: 1. Agriculture 2. Automotive 3. BFSI (Banking, Financial Services and Insurance) 4. Child Care 5. Geriatric Care 6. Dialysis Technology 7. Electronics 8. Hospitality 9. Healthcare 10. Industrial Safety 11. Industrial Tool Manufacturing 12. ITeS (Information Technology enabled services) 13. Management, Entrepreneurship and Professional skills 14. Media and Entertainment 15. Pharmaceuticals 16. Printing and Packaging 17. Renewable Energy 18. Telecom 19. Travel and Tourism.

### The current functioning sectors are illustrated below:



For all other sectors, there was a vertical anchor, specializing in that sector, however for social sectors Child Care and Geriatric Care, TISS SSE was the vertical anchor. The Navajbai Ratan Tata Trust supported the social vertical courses in Childcare and Geriatric Care.

The number of students who completed the courses by 2017 was around 3202, active student count was around 5344.

The online examination platform for theory component was ready for use for semester examination commencing from June 2017.

From 1st April, 2017, SVE now SSE moved into a self-funded mode and did not seek any external grant.

## 10 TISS-School of Skill Education

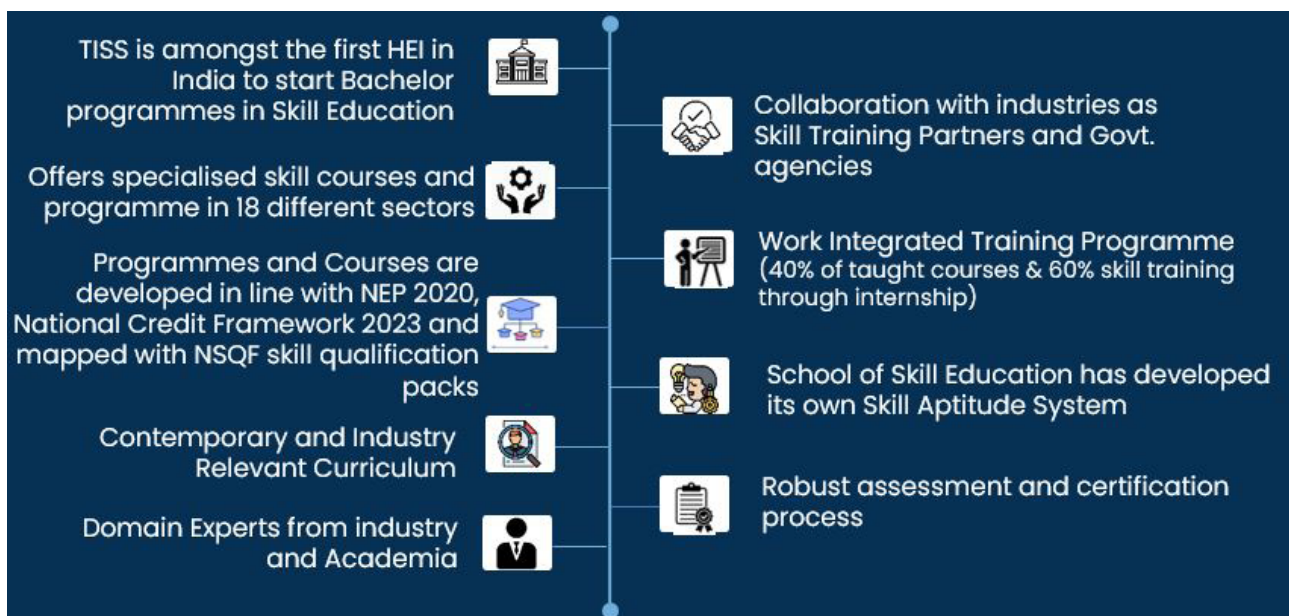
In February 2018, Tata Institute of Social Sciences was awarded Category I status by The Ministry of Human Resource Development, with autonomy to offer these programmes across length and breadth of the country.

Every year, TISS SSE conducted All India Partner's meet – an interactive session for discussion on progress, challenges and way forward for vocational education in India. Every year during this meet, best performers in the category of vertical anchors, hub partners were felicitated during the award ceremony motivating them and encouraging best practices amongst the network. Parameters for selection included total revenue generated, student count, number of courses rolled out, compliance to TISS SSE policies.

SSE Counsellors' meet was organized on December 11th and 12th, 2018. A session on Leadership and Proactiveness was conducted during this meet by Ms. Swapna Redij, Head, Counselling Centre, TISS. An orientation session on 'Sexual Harassment at Workplace' was organized for all consellers and SSE staff. The same was conducted by Ms. Chayanika Shah, Dr. Shewli Kumar and Ms. Roja Pillai who represented the Women and Gender Development Cell (WGDC) of TISS.

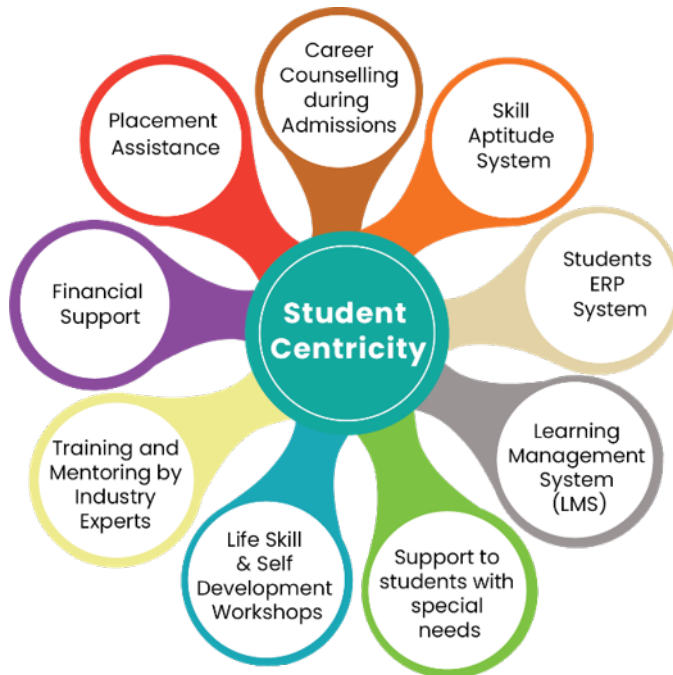
In 2018, Learning Management System (LMS) was introduced and login credentials were shared with Trainers. Different trainers' teaching programmes across the country were able to share their learning material through LMS, it helped in enriching the course content. Some of the uploaded content was made available to students through their logins as additional inputs. Basis the same ERP login, the students were able to view their paid fees, unpaid fees installments, attendance, exam time-table, etc.

### Synoptic Overview





## Students Support System at TISS SSE



## Seminars & Workshops

### Seminar on Skill India – a Way Forward in Higher Education:

A National Consultative Seminar on above subject was organized jointly by the Maharashtra State Skill Development Society (MSSDS), Government of Maharashtra, Tata Institute of Social Sciences SSE and Observer Research Foundation (ORF) from 15th – 17th October, 2018 at TISS Campus, Mumbai. This was the first such event to explore the potential of vocational education and training in higher education space. The seminar was inaugurated by the then Finance Minister of Maharashtra Shri Sudhir Mungantiwar. Shri Prakash Javadekar, the then Union Minister, HRD joined the function through video conference. The inaugural session of the seminar comprised presentations from key representatives of the Central Government as well as Government of Maharashtra. The key message from all speakers was the need for skill-based courses in higher education that can lead to better employability, income and promote entrepreneurship.

Workshop on Personal and Professional Effectiveness – was conducted for entire SSE team on 1st and 2nd June, 2018 by Ms. Nirmla Subbamarthy, Director, Ascent Leadership and Management Consultants P. Ltd, Hyderabad. Various topics like personal excellence, communication skills, customer interfacing skills, time management techniques and continual development through kaizen were covered in the workshop along with action plan.

### **In-house Staff Development Activities:**

**Activities were conducted for staff development.**

**Kaizen** – Kaizen Workshop was conducted. As a continuation of kaizen session in above workshop, the action plan prepared by teams were implemented for 6 months for key activities. Significant improvement was noted in these areas by the end of 6 months.

By 2019, the number of partners steadily increased, TISS SSE now had 19 vertical anchors, 230 Academic Facilitators, 1038 skill knowledge providers. Our bouquet of courses / programmes included 30 Bachelor programmes, 24 PG Diploma, around 190 skill enhancement / short term courses across 19 different sectors. Number of active students was around 10,021 and number of students who completed various courses stood at 13,356.

Generic education component revision was done considering the 21st century life skills and employability skills, content of semesters III and IV was revised which comprised of various courses like digital literacy, financial literacy, basics of accounting and so on. Online content of Wadhvani Foundation was used in generic education.

### **Library Project:**

Since TISS SSE was conducting a wide range of vocational training courses across several verticals, it was decided to establish a library at every hub. The purpose was to encourage self-learning among the students. Library project was initiated from January 2018 onwards, 118 libraries were set up in year 1, around 4174 books were purchased. The essential list of reference books was compiled basis the course curriculum. Books were purchased centrally at TISS SSE and sent to Academic Facilitators, it was mandatory for Academic Facilitators to avail this facility with 50% investment by SSE and 50% by Academic Facilitators.

### **Skill aptitude system (SAS):**

SAS was developed to help the students understand their own aptitude and select an appropriate programme. SAS was implemented for guidance and not as a selection tool. These tests were developed with the guidance of the scientists from Defence Institute of Psychological Research (DIPR), Delhi. The tests were user-friendly, comprehensive and reliable. Separate battery of tests were developed for each vertical and administered through a software enabled system. The pilot testing was done in May 2019.

### **Examination and Certification:**

The School had taken various measures to conduct standardized examination and evaluation process across the verticals. This helped to ensure fair evaluation of students' knowledge and skills. External invigilators and examiners were empanelled for conducting examinations. For practical examination, an assessment / evaluation criteria were prepared as per the syllabus of the course, also as per the work completed by the students during on-the-job training. In most cases, assessors approved by Sector skill council were appointed for each vertical. TISS SSE had a pool of 524 invigilators and 165 examiners (for conduct of vocational practical exam) and around 110 answer paper assessors.

### Online examination platform was a key achievement of SSE in 2019.

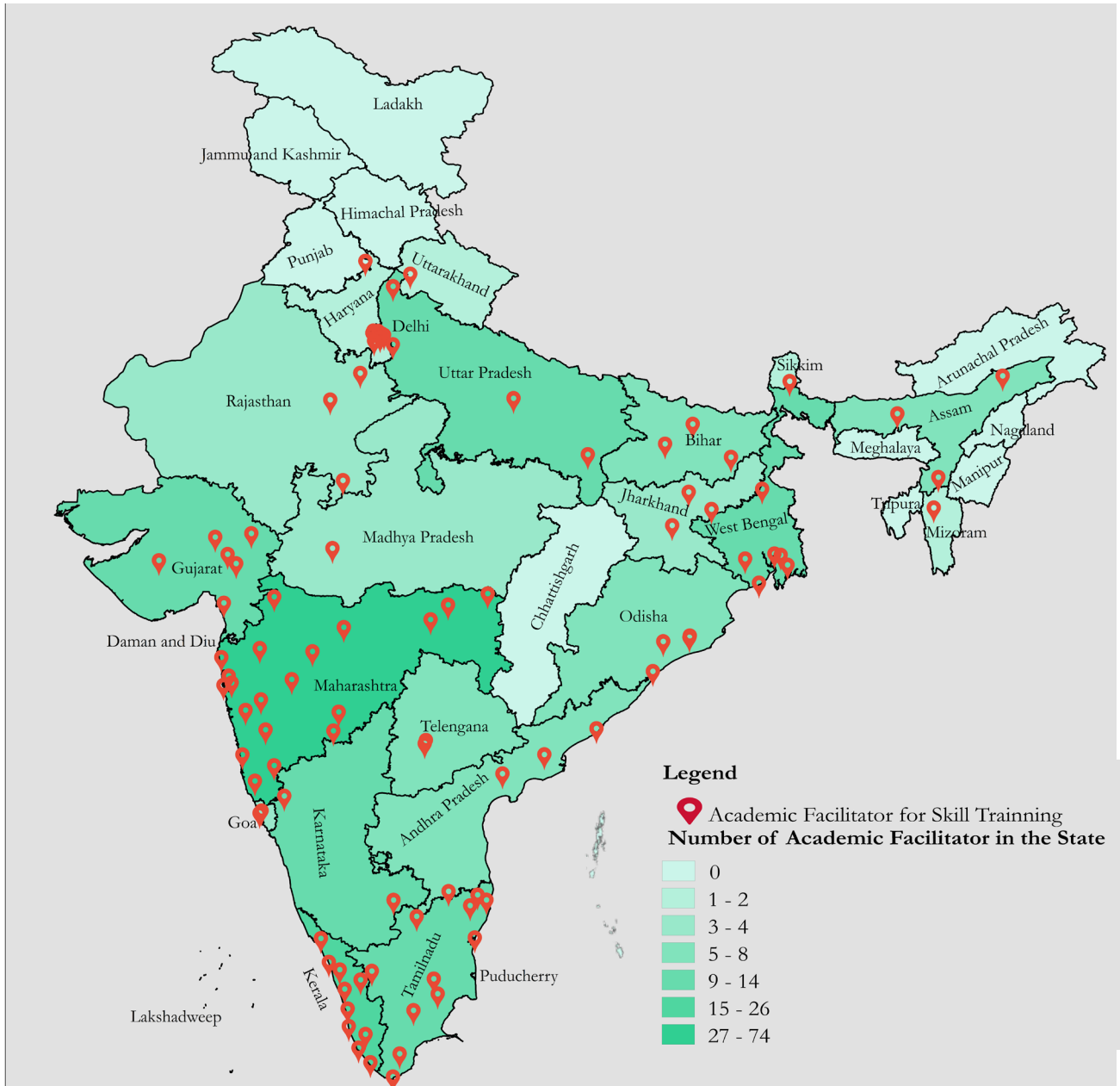
- The question papers were generated online by using the question banks uploaded on the ERP.
- Online checking of answer sheets – Answer sheets were assessed online, for this the bar codes were generated for all students and they were pasted on blank answer sheets. After completion of examination, all answer papers were uploaded on ERP along with question papers and answer keys. The subject experts checked the answer sheets online and entered marks on ERP. The internal marks and practical examination marks too were entered on ERP.
- Online result generation – All the marks (theory, practical and internal) got reflected on ERP from the portal. Post that the results and grade cards could be prepared and extracted.

### Induction of New Academic Facilitators:

Induction of newly on-boarded Academic Facilitators was conducted on 7th March, 2019. Total 230 representatives of various hub partners attended the meet, it comprised of updates on various processes and decisions taken by TISS SSE Management, recognition of good performing partners, their felicitation, sharing of best practices etc.

### SSE Status Update

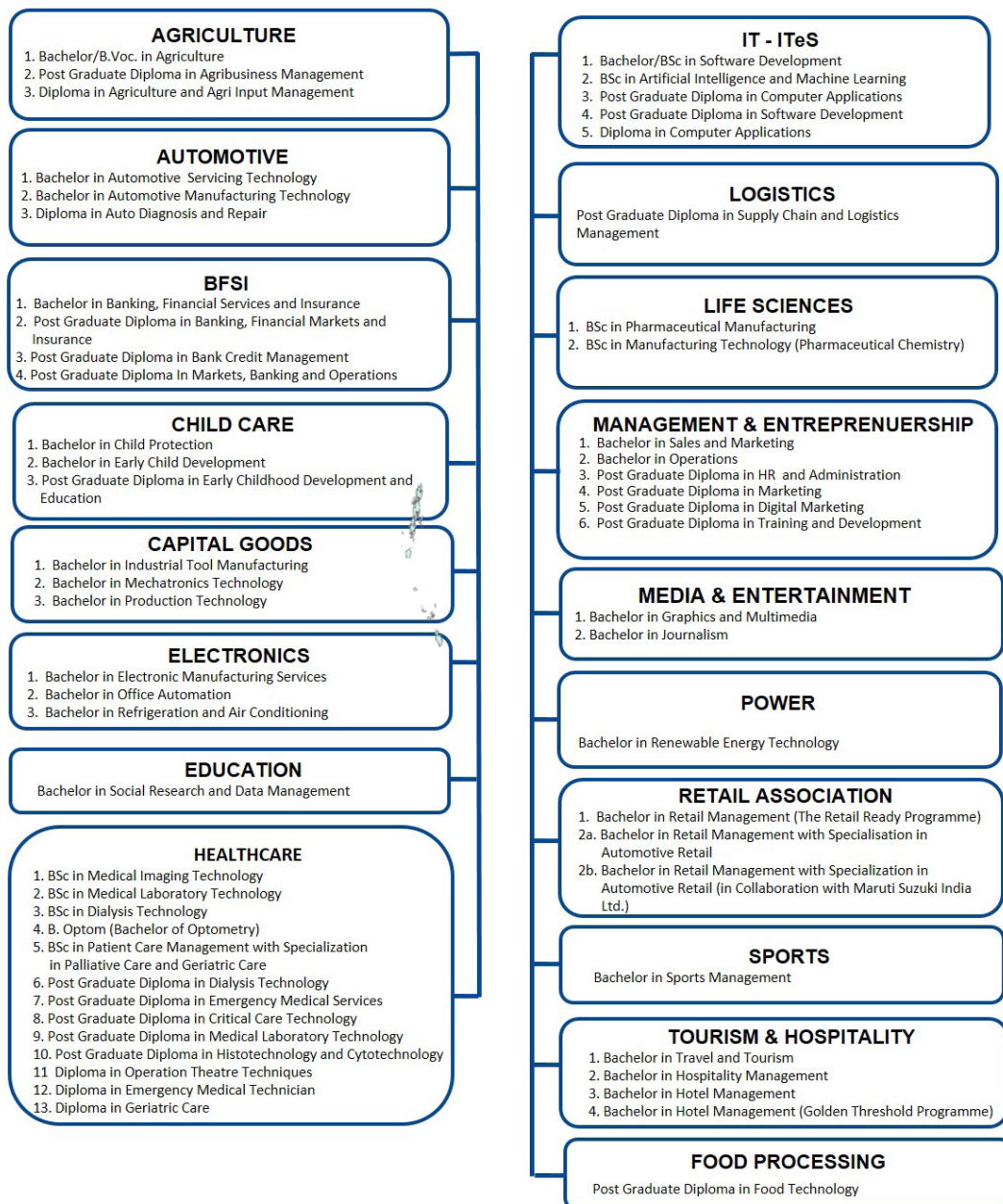




Credit: Ms. Saritha C.T and Satish Jadhav

### Milestones in the Journey of TISS SSE

Milestones	Year
Inception of School of Vocational Education	December 2011
MoU signed with AICTE for incubation of National Vocational University	March 2012 to March 2015
MoU extended for next two years	March 2015 to March 2017
Skill gap analysis, conceptualization of model, development of various programmes (Diploma, B. Voc. and P. G. Diploma)	Year 2012-2014
Students enrolled in TISS SSE programmes	July 2014
MoU with AICTE completed and TISS SSE became self sufficient	July 2014
Launch of new model	September 2021



**Bachelor Programmes (Duration: 3Years)**

Sr. No.	Programmes
1.	Bachelor/B.Voc. in Agriculture
2.	Bachelor in Automotive Servicing Technology
3.	Bachelor in Automotive Manufacturing Technology
4.	BSc in Artificial Intelligence and Machine Learning
5.	Bachelor in Banking, Financial Services and Insurance
6.	Bachelor in Child Protection
7.	BSc in Dialysis Technology
8.	Bachelor in Early Child Development
9.	Bachelor in Electronic Manufacturing Services
10.	Bachelor in Graphics and Multimedia
11.	Bachelor in Hospitality Management
12.	Bachelor in Hotel Management
13.	Bachelor in Hotel Management (Golden Threshold Programme)
14.	Bachelor in Industrial Tool Manufacturing
15.	Bachelor in Journalism
16.	BSc in Medical Imaging Technology

**Post Graduate Diploma Programme (Duration: 1Year)**

Sr. No.	Programmes
1.	Post Graduate Diploma in Agribusiness Management
2.	Post Graduate Diploma in Banking, Financial Markets and Insurance
3.	Post Graduate Diploma in Bank Credit Management
4.	Post Graduate Diploma in Markets, Banking and Operations
5.	Post Graduate Diploma in Early Childhood Development and Education
6.	Post Graduate Diploma in Dialysis Technology
7.	Post Graduate Diploma in Emergency Medical Services
8.	Post Graduate Diploma in Critical Care Technology
9.	Post Graduate Diploma in Medical Lab Technology
10.	Post Graduate Diploma in Histotechnology and Cytotechnology
11.	Post Graduate Diploma in Computer Applications
12.	Post Graduate Diploma in Software Development
13.	Post Graduate Diploma in HR and Administration
14.	Post Graduate Diploma in Marketing
15.	Post Graduate Diploma in Digital Marketing
16.	Post Graduate Diploma Training and Development
17.	Post Graduate Diploma in E-vehicle Technology
18.	BSc in Medical Imaging Technology



## **PART II**

# **KALEIDOSCOPE: Picture Gallery**

**FORGING PARTNERSHIP: MoU FOR PROGRESS & COLLABORATION**

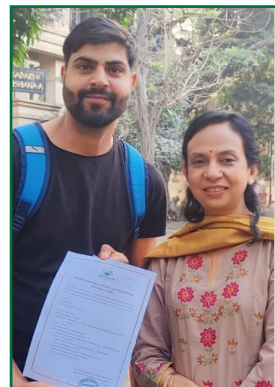


**School of Skill Education, Tata Institute of Social Sciences under the Maharashtra Young Leaders Aspiration Development Programme signed an MoU with Samagra Shiksha, Government of Maharashtra**

**ACCOLADES WON**



**Ms. Dilna Joseph got enrolled in London, UK to pursue her Masters in Public Health**



**Mr. Naim Malik got selected to pursue Masters at Tzu University of Science and Technology, Taiwan**

## PLETHORA OF CURRICULAR AND CO-CURRICULAR ACTIVITIES

### A. Convocation & Certificate Distribution



Convocation held on 20th February 2023, Students of Healthcare at Convention Centre, TISS, Mumbai





Students of TISS - SSE MLT studying at Iqraa Academic, Calicut during the Certificate distribution at Mumbai Campus



Certificate Distribution Ceremony of Healthcare courses conducted at Lourde Paramedical Institute, Kannur, Kerala



**B. HEALTH CAMPS & COMMUNITY SUPPORT**



**Health Camp by TISS SSE Students pursuing undergraduate Healthcare Programme, Adarsh Paramedical Institute, Pune Maharashtra**



**Health Camp Conducted at Ahmednagar, Maharashtra**



### Eye Camp at Abiramam Trust Institute with Tamil Nadu Government District HQ Hospital



Rangoli Competition at Apex kidney care by the students of Dialysis Technology during Health camp



Students of TISS SSE at Apex Kidney Care participated in medical camp and organ donation camp on 13th December 2022





Students Provided Medical Support at a Marathon Run in Madhurai



Ramnad District Book Fair 2023: Reaching out to the People





**School Health Camp conducted at Lourde Institute of Paramedical**



School Health Camp conducted at Lourde Institute of Paramedical by Students of TISS SSE





Students of MLT, MIT and DT at TISS Hyderabad Off campus during the campus immersion



Healthcare Students of Iqra participating in the Diabetes Awareness Camp at Diacon 23



General & Diabetics Medical Camp – At Abiramam Trust Institute, Putukottai, Tamil nadu with Apollo Hospitals

### C. CELEBRATION OF DAYS



Students of Healthcare Sector Celebrating World AIDS day at Shihab Tangal Hospital, Tirur, Kerala





TISS SSE Healthcare team participating in the World Hospice and Palliative care day 8th October 2022 at Nehru Science Centre, Worli Mumbai.



International day of Radiology celebrated at Iqraa by the students of Medical Imaging Technology



Environment Day celebration at Lourde Paramedical Institute Kanoor Kerala



World AIDS Day



Laboratory Day Celebration



**D. SKILL TRAINING**



**Students immersed in a rigorous and Intensive curriculum update ahead of Skill training at Sairaj Enterprises Ahmednagar, Maharashtra**



**AHA Certified Basic Life Support Program conducted at Apex Kidney Care Mumbai**





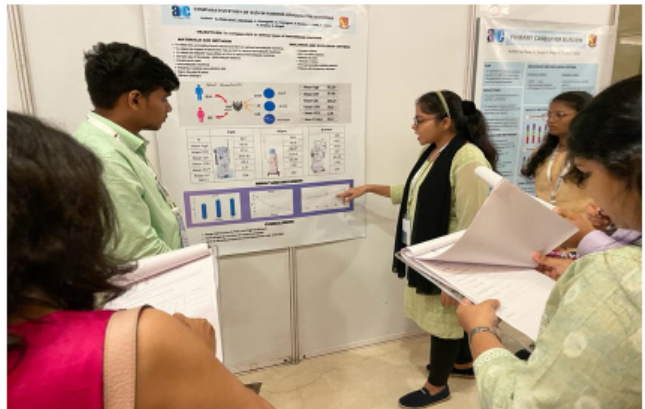
Students at on-the-job Skill Training

## E. CONFERENCES AND SYMPOSIA

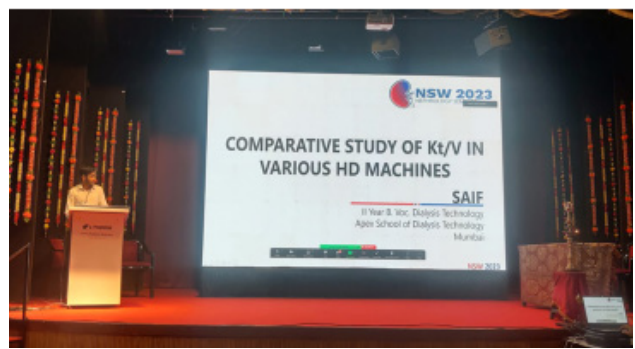


**TISS SSE Students at Swami Vivekananda Bahuudeshiya Santha, Gondia, Maharashtra attended the First International and 7th State Level VIDCON Conference**





Winners of Dialysis Simplified 2022, Mumbai



Paper Presentations At ISHD Conference 2023, Mumbai





**PART III:  
SECTOR SPECIFIC  
INFORMATION -  
HEALTHCARE HORIZON:**

**Navigating the Landscape of  
Sector Specific Insights**

## **Introduction of the Sector**

“Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity,” states WHO Constitution.

This state of health enables a person to lead a socially and economically productive life. Paramedical professionals play a vital role in the health care delivery system. They should be skilled and should be sensitive towards patients. They can act as catalyst for delivering the promotion of health care as well as work for preventive and curative health care.

During the COVID 19 pandemic, it was observed that there is a scarcity of skilled human resources in the healthcare sector in India as well as at international level. As government beefs up healthcare system taking multi-pronged approach, there is growing demand for trained personnel in the sector. In the post-pandemic world there has been increased focus on leveraging technology to deliver quality healthcare services. By bridging the skill gap in the sector, India can not only meet its domestic requirement of trained personnel but also provide nurses, paramedics and other trained medical staff to other countries.

As per a report titled ‘Future of work after COVID-19’ by McKinsey Global Institute, demand for health aides, technicians, wellness professionals, nurses and other healthcare workers are likely to see the highest growth by 2030 across countries. The report pegged net employment change (2018-2030) for health professionals at a whopping 112 per cent.

To meet the demand of medical professionals, several states in India have started recruitment drives.

Healthcare comprising of hospitals, medical devices, clinical trials, outsourcing, telemedicine, medical tourism, health insurance and medical equipment has become one of India’s largest sectors – both in terms of revenue and employment. With increased awareness about health, domestic healthcare, medical tourism and health insurance markets are gaining momentum, offering opportunities for trained personnel.

## **Programmes Run by SSE Under Healthcare Sector**

### **1. BSc in Patient Care Management with Specialization in Palliative Care and Geriatric Care**

A graduate of BSc in Patient Care Management with Specialization in Palliative Care and Geriatric Care is an all-rounder in critical care. The course envisages to build an overall expertise in the students, of managing patients with care, whether it is an in-patient or someone in the OPD. Apart from general patient care the students will specialize in geriatric care and palliative care. They would be capable of offering a range of services like cardiac care or care of cancer patients. The focus of the course is on geriatric care and palliative care. Data from National Family Health Survey (NFHS) and census shows that life span has increased in general. Hence, provisions for care and support for older population need to have more thrust in the development initiatives.

This includes integrating healthcare components required for older population and developing multi-level interdisciplinary professionals to provide quality care and support to them. In addition to geriatric care, palliative care also is a need of the time. It has been estimated that in India, the total number of people who need palliative care is likely to be 5.4 million people a year. Palliative care is explicitly recognized under the human right to health.



The goal of palliative care is to improve quality of life. It is required for a wide range of diseases like cardiovascular diseases, cancer, chronic respiratory diseases, AIDS, diabetes and so on. Palliative care treats a wide range of issues that can include pain, depression, anxiety, fatigue, shortness of breath, constipation, nausea, loss of appetite and difficulty in sleeping.

The need for such professionals has been expressed not only by the healthcare sector employers, but also by the patients. This course enables students to deliver quality care in all three areas i.e., patient care, geriatric care and palliative care. Students may get job opportunities as nursing assistants in private hospitals, in the home care setting as well as in various developed countries where the life span has increased.

The course thus, aims to fill the gap between the demand for these professionals and dearth of their availability. That apart, the course creates the grounds for enhancing vertical growth opportunities for the Patient Care Management graduate.

The complexity of skill development increases with each level, in correspondence with the standards set by the National Skills Qualification Framework. Thus, each activity would be having an increasing number of tasks every progressive year.

### **Eligibility for Admission**

The eligibility for admission to BSc in Patient Care Management with Specialization in Palliative Care and Geriatric Care is 10+2 or equivalent, in science stream.

### **Career Prospects**

After completing BSc in Patient Care Management with Specialization in Palliative Care and Geriatric Care, the students will be able to find jobs at Hospitals (inpatient, palliative care OPD) hospice, rehabilitation centres, home care settings and nursing homes.

## **2. BSc in Medical Imaging Technology**

BSc in Medical Imaging Technology is an undergraduate Medical Lab Technologist course. Medical Imaging is the technique and process of creating visual representations of the Interior of Human Body (i.e., Anatomy) as well as visual representation of the function of some organs or tissues (i.e., Physiology) used for Clinical Analysis and Diagnosis of Medical Intervention.

### **Eligibility for Admission**

The eligibility for admission to BSc in Medical Imaging Technology is 10+2 or equivalent, in science stream.

### **Career Prospects/Job Roles**

After completing BSc in Medical Imaging Technology course the students will be able to find jobs in establishments such as Diagnostic Centres, Medical Offices, Educational and Research Institutes, Healthcare Management or Administration, Hospitals and Radiology Clinics

### **3. BSc in Medical Laboratory Technology**

A graduate of BSc in Medical Laboratory Technology is an all-rounder as far as technologies in a medical laboratory is concerned. The course envisages to build in an overall expertise in the students, of performing medical laboratory tests, whether it is routine or special tests. The students would be capable of performing a range of tests such as those related to phlebotomy, clinical biochemistry, haematology, serology, cytogenetics, etc. Besides, skills related to lab management and ethics, biomedical waste disposal, personality development, effective communication skills, attitude of health care workers etc. would also be developed in them.

The course creates the grounds for enhancing vertical growth opportunities for the Medical Laboratory Technology graduate.

The course aims to impart students with knowledge regarding Anatomy, so that they understand the investigative aspect adequately to equip themselves to perform laboratory procedures. It will not only help the students to perform investigative procedures more accurately but also help them to perform better in a Pathology Lab.

#### **Eligibility for Admission**

Any student who has completed 10+2 or equivalent, in science stream can apply for this programme.

#### **Career Prospects**

Depending upon one's training and qualification, the BSc in Medical Laboratory Technology professionals may work as technologists or technicians at medical laboratories. The student may start off by working as a technician. Some of the common job profiles available in front of graduates include lab technician, lab technologist, lab supervisor and lab manager.

### **4. Bachelor of Optometry (B. Optom)**

Bachelor of Optometry (B. Optom) is a 4-year degree programme in the advanced study of the clinical skills involved in professionally measuring eyesight, prescribing corrective lenses and detecting eye diseases. In this course candidates specialize in the area of Sports Vision, Low Vision Aids, Contact Lens, Paediatric Optometry, Orthotics, Behavioural Optometry, etc. It is the primary health care provider for the treatment and management of the Refractive Disorders and Information Processing. It is career promising in nature and provide many job opportunities for the candidates after the successful completion.

#### **Eligibility for Admission**

The eligibility for admission to Bachelor of Optometry (B. Optom) is 10+2 or equivalent, in preferably science stream.

#### **Career Prospects**

Successful graduates of this programme get employment across both private and government sectors, in areas such as eye clinics, optician showrooms, contact lens and ophthalmic lens industry, in hospital OPD settings of ophthalmology department, etc.

## 5. BSc in Dialysis Technology

The 3-year undergraduate programme provides students with the opportunity to study the Principles of Dialysis, basic medical science of the kidney, fluid and electrolyte balance, hematologic aspects, infectious diseases, dialysis systems and equipment, vascular access to circulation, blood chemistry, complications of renal failure, psycho- social aspects and an overview of peritoneal dialysis and renal transplantation.

In short, students are trained to operate Dialysis Equipment, inspect and maintain it. Other than technical training, subjects like Human Anatomy and Physiology, Renal Diseases, other relevant diseases, Blood Chemistry, etc. are also covered in this course.

### Eligibility for Admission

The eligibility for admission to BSc in Dialysis Technology is 10+2 or equivalent, in science stream.

### Career Prospects

A career in research, following the completion of a higher degree is an option chosen by some graduates. Graduates are also eligible for employment overseas where their qualifications, training and experience are highly regarded. They are also employed in hospitals and private practices as dialysis technicians.

## Post Graduate Diploma Programmes

### 1. Post Graduate Diploma in Medical Laboratory Technology

A Post Graduate Diploma in Medical Laboratory Technology is a programme that envisages to build in an overall expertise in the student, to perform lab services including special tests. The students would be capable of performing a range of tests such as those related to clinical biochemistry, haematology, serology, cytogenetics in an emergency situation.

### Eligibility for Admission

The eligibility criteria for the Post Graduate Diploma in Medical Laboratory Technology is a qualified graduate holding a degree in Science/Applied Science/ Bachelor in Medical Laboratory Technology from any University of repute.

### Career Prospects

On completion of the course, the students will be able to work in various pathology laboratories and hospitals as lab technician, senior lab technician, medical lab technician, and lab manager based on the experience.

### 2. Post Graduate Diploma in Emergency Medical Services

A Post Graduate Diploma in Emergency Medical Services (PGDEMS) is a programme that envisages to build an overall expertise of medical professionals, in attending medical emergencies.

The main goal of the programme is to produce highly efficient medical resource with the necessary knowledge, skill and attitude to manage a wide range of clinical problems in emergencies. Special emphasis is placed on the relatively common emergencies.

The participants will be updated about all the current protocols in diagnosing and treatment of all medical and surgical emergencies.

As a result of training in this course, the medical professional would become competent in life saving emergency interventions during Pre Hospital Emergency Care efficiently and promptly to save the critically ill patient within the golden hour that is most required.

On successful completion of the course the participant will be prepared to act as first responder in an event of mass disaster and provide medical relief in prehospital settings, will have highly demanding skills and competencies to work in the field of Prehospital Emergency and Accident and Emergency Departments of Hospitals. The versatile nature of training also makes a candidate the choice for employment in 'A and E' room of a hospital, EMS systems, and on-site clinics of the factories and off shore installations.

The course lays foundation for diverse kinds of skills and competencies relevant for the specific job-role. The course is designed as per standards set by industry.

### **Eligibility for Admission**

The candidate should have completed graduation in one of the following degree courses: MBBS/ BHMS/ BAMS/BUMS/BDS/B.Sc. (Nursing)/ BSc. in EMS, BPMT (Anaesthesia), BPMT (EMS) or equivalent.

### **Employability/Skill Enhancement**

- Students will be skillfully trained and will have an upper hand in:
- Awareness of entire skill set required in Pre- Hospital Medical and Traumatic Emergencies
- Adaptability to efficiently deliver emergency care, work and operate emergency medical services.
- Special training in handling Airway, Breathing, Circulation and Deformity
- Ability to assist Emergency Physicians effectively in entire spectrum of pre-hospital emergencies and emergency room patient care.
- Understanding of careful handling of medical and traumatic emergencies in adults, children and infants
- Ability to observe and deliver emergency care as per the standard prehospital care protocols.
- Ability to administer efficient emergency care on the streets, patients' home and Emergency Departments of the Hospitals.
- Training in administering life-saving medication under the guidance of the Emergency Physician or Medical Director of the EMS System
- Ability to work in EMS systems
- Effective handling of Ambulance operations
- Awareness regarding various techniques in managing the Airway, Breathing, Circulation, Defibrillation, Lifts and Carrying the patient, routes of administration of medications, bandaging and splinting and other lifesaving medical and surgical interventions

### **Career Prospects**

The students with Post Graduate Diploma in Emergency Medical Services have wide avenues open.

They have many employment opportunities in provincial emergency and rescue services, private emergency services, the mining industry, as well as international occupational health, safety and emergency services. They can work as investigator, clinical research physician, medical coordinator, quality analyst, scientific affairs medical advisor, strategy manager, surgery coder and technology analyst.

### 3. Post Graduate Diploma in Critical Care Technology

This course is created to address the manpower shortage in the Intensive Care arena. The future medical environment will require versatile trained individuals in a variety of medical interventions. Currently clinicians are overwhelmed by technical advancements in the health care and it has become imperative that trained technicians are available to deliver competent care to the patients using current technology and be equipped to address future modifications in the current practice. Addition of trained ICU Technicians capable of handling mechanical ventilators and other ICU related equipment are an asset that strengthens and facilitates the functioning of an Intensive Care Unit.

#### Eligibility for Admission

The candidate should have completed BSc Nursing, BHMS, BAMS and BUMS, PGDEMS with 2 years' experience of working in Intensive Care Department/Emergency Department/ EMS; MBBS, BSc Nursing with Certificate in Critical Care Nursing/Emergency Care Nursing; BHMS, BAMS, BUMS with PGD in Emergency Medical Service or equivalent BSc (EMT)/ Bachelor(EMS) or equivalent

#### Career Prospects

The students with PG Diploma in Critical Care Technology have wide range of job opportunities open. They get jobs in large hospitals and major nursing homes having ICU/NICU as intensive care unit technologist, emergency medicine physician, CAT technician, dialysis assistant, respiratory therapist and critical care technician.

### 4. Post Graduate Diploma in Dialysis Technology

Post Graduate Diploma in Dialysis Technology specifically aims at those pursuing a professional career in Dialysis Technology. It is designed to provide specialized training both in basic scientific principles of modern Dialysis Technology and in the application of these principles.

#### Eligibility for Admission

The candidate must have completed any of the following:

- Bachelor's Degree in Science
- BSc. Nursing.
- B.Voc. in Dialysis Technology
- BSc in Dialysis Technology.

#### Employability/Skill Enhancement

Considering the rigorous, work integrated education and skilling process that the SSE students undergo the industries oftentimes employ the students attached with them as full-time employees.

#### Career Prospects

Dialysis Technologist can function as Dialysis Technician, Research Assistant or Lecturers. They could also be employed in the technical line of dialysis equipment repair and maintenance.

The professionals will be able to provide high standards of care to patients who have chronic kidney diseases. They get mastery in renal replacement therapy and expertise to bring forth new ideas in the field of renal dialysis.

## **5. Post Graduate Diploma in Advanced Histotechnology and Cytotechnology**

Histotechnology is highly demanding especially in the context of cancer diagnosis. Although informal short-term training is available, a structured training course is lacking. Diploma courses in medical laboratory technology offer a very cursory introduction to the subject with little or no practical training. Moreover, the theoretical underpinnings of the specialty are under emphasized. A specialized Histotechnology course conducted by a dedicated histopathology laboratory is the need of the hour. Cytotechnology is the microscopic study of body cells to detect cancer, viral and bacterial infections, and other abnormal conditions. Cytotechnologists usually work closely with a pathologist.

### **Eligibility for Admission**

The candidate should have completed BSc (Life Sciences/Microbiology/Biosciences/Chemistry with Biology + MLT, BSc. MLT, MSc MLT and B.Voc. MLT)

### **Career Prospects**

The career prospects for a histotechnologist is in large hospitals, major pathology laboratories where a histopathology division is functional. Other avenues are veterinary services, private research labs, pharmaceutical companies, research organizations, and forensic labs. Employment opportunities abroad are also bright.

# **PART IV**

## **Expressive Threads:**

### **Weaving the Tapestry of Thematic Exploration**

- A. Youthful Expertise: Student Chronicles
- B. Skill Craft Narrative: My Experience
- C. Academic Perspectives: Faculty Voices



## Section A - Youthful Expertise: Student Chronicles

### THEMES FOR EXPRESSIVE THREADS - STUDENTS' TALES

1. Learnings from Covid-19 Pandemic
2. Experiences of Women, Children and Aged in Accessing Health Care During the Covid
3. Skill Education in Healthcare Sector
4. Career Options in Healthcare
5. National and Global Concerns (Debates On Public Health Policies - Access, Equity and Skill Education)
6. Emerging Innovative and Good Health Care Practices
7. The Future of Health Care

### THEME 1: LEARNINGS FROM COVID-19 PANDEMIC



**Doly Vishwakarma**

*Programme:* BSc. in Dialysis Technology

*Batch:* 2021-2024

*Semester:* 5

*KPST name and location:* Sushrut Hospital and Research Center-Chembur  
Apex Kidney Care Pvt. Ltd. – Malad

#### **Learning from the COVID-19 Pandemic in Healthcare**

##### **Introduction**

The COVID-19 pandemic has undoubtedly been a defining moment for the healthcare sector worldwide. It has tested the resilience, adaptability, and preparedness of healthcare systems, including private hospitals, government institutions, corporate hospitals, and community health centers. From a student's perspective, this crisis has offered valuable insights into the strengths and weaknesses of these healthcare setups. Let's explore the learnings from the pandemic experience in these diverse healthcare settings.

Government hospitals and clinics played a pivotal role during the pandemic, serving as the frontline of defense against COVID-19. From my perspective, some key learning includes:

- Resource Allocation

The pandemic highlighted the importance of efficient resource allocation in public healthcare. We, the Students observed how the shortage of critical supplies such as personal protective equipment (PPE) and ventilators affected patient care. This experience emphasized the need for better stockpiling and distribution mechanisms.

- **Telemedicine Adoption**

The pandemic accelerated the adoption of telemedicine in public healthcare. We recognized the potential of digital health solutions in improving access to care and reducing the burden on physical facilities.

### **PRIVATE HOSPITALS**

Private hospitals played a significant role in managing COVID-19 patients, and students gained insights into the following aspects:

- **Efficiency and Resource Management**

We observed that private hospitals, with their robust financial resources, could swiftly adapt to the changing circumstances by adding ICU beds, isolation wards, and testing facilities. This underscored the importance of financial preparedness in healthcare.

- **Quality Care**

The pandemic reinforced the significance of quality healthcare services in private institutions. We learned about the importance of maintaining high standards of care and infection control, which contributed to better patient outcomes.

- **Community Outreach**

Many private hospitals engaged in community outreach efforts to raise awareness and provide free testing and treatment. Students realized the importance of corporate social responsibility and community involvement in healthcare.

### **CORPORATE HOSPITALS**

Corporate hospitals, often seen as a bridge between public and private healthcare, demonstrated the following lessons:

- **Collaboration and Partnership**

Students witnessed how corporate hospitals collaborated with the government and other healthcare providers to manage the crisis effectively. They learned the value of cooperation and partnership in times of need.

- **Research and Innovation**

These hospitals also played a vital role in clinical trials and research. Students appreciated the role of research and innovation in finding new treatments and vaccines.

### **COMMUNITY HEALTH CENTERS**

Community health centers, which often cater to underserved populations, offer unique insights for students:

- **Equitable Care**

Students saw the importance of ensuring equitable access to healthcare during a crisis. Community health centers demonstrated the need for healthcare to be accessible to all, regardless of socioeconomic status.

- **Health Education**

These centers actively engaged in health education and awareness campaigns. We recognized the vital role of preventive measures in controlling the spread of infectious diseases.

In my conclusion, the COVID-19 pandemic has been a profound learning experience for healthcare students across various settings. It has highlighted the strengths and weaknesses of different healthcare institutions, emphasizing the need for preparedness, resource management, resilience, and a commitment to quality care. As the world continues to combat the pandemic, we, the students in the healthcare sector are well-equipped with valuable insights to shape the future of healthcare delivery and policy. The lessons learned from this crisis will undoubtedly have a lasting impact on healthcare systems and the way they are perceived by both students and the broader community.



**Simran Khan**

*Programme:* BSc in Dialysis Technology

*Batch:* 2020-2023

*Year of completion:* 2023

*Academic Facilitator:* Apex Kidney Care Pvt. Ltd.-Malad

*KPST:* AKC-Dialysis centre Malad

### **Learnings of the Healthcare Sector from the COVID-19 Pandemic Experience in Private, Government, Corporate Hospitals, and Community Health Care Centres**

The COVID-19 pandemic has had a profound impact on the global health care professionals, forcing hospitals and health care centres to adapt rapidly to the evolving situation. This article aims to explore the key learnings from the pandemic experience in various health care settings, including private, government, corporate hospitals, and community health care centres. By understanding these learnings, the health care sector can better prepare for future challenges and improve overall patient care.

One of the most significant learnings from the pandemic is the importance of collaboration and communication among different health care entities. Private, government, and corporate hospitals, along with community health care centres, need to work together seamlessly to ensure effective patient management, resource allocation, and information sharing. The pandemic has highlighted the need for improved coordination and communication channels to enhance the overall response to public health emergencies.

The pandemic has taught the health care sector the importance of flexibility and adaptability in responding to rapidly changing circumstances. Private, government, and corporate hospitals, along with community health care centres, have had to quickly adapt their operations, protocols, and workflows to accommodate the surge in COVID-19 cases. This experience has emphasized the need for agile systems that can be easily modified to meet evolving patient needs.

The COVID-19 pandemic has accelerated the adoption of telemedicine and digital health solutions. Private, government, and corporate hospitals, as well as community health care centers, have realized the potential of remote consultations, telemonitoring, and digital health platforms in providing efficient and accessible care.

The pandemic has highlighted the importance of investing in and expanding telemedicine infrastructure to ensure continuity of care during crises.

The pandemic has underscored the significance of community engagement and education in managing public health emergencies. Private, government, and corporate hospitals, along with community health care centers, have recognized the need to actively involve communities in preventive measures, vaccination campaigns, and health education initiatives. Building trust and disseminating accurate information are crucial in controlling the spread of infectious diseases.

### **Conclusion:**

The COVID-19 pandemic has been a challenging time for the health care sector, but it has also provided valuable learnings. Private, government, and corporate hospitals, along with community health care centers, have realized the importance of collaboration, preparedness, flexibility, telemedicine, and community engagement. By incorporating these learnings into their practices, the health care sector can enhance its ability to respond effectively to future crises and provide improved patient care.



**Sayyed Kazim Haidar**

*Programme:* BSc in Medical Laboratory Technology

*State:* Maharashtra

*Batch:* Semester 5

*Academic Facilitator:* Tikсна livelihood

### **Learnings from COVID-19 pandemic**

**Introduction to COVID-19 pandemic:** The coronavirus disease 2019 (COVID-19) pandemic is a global outbreak of coronavirus – an infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The COVID-19 greatly affects people’s lives. Everyone in the world directly or indirectly faces the severe consequences of this disease. Due to severe isolation and cessation of some social affairs, this disease causes problems such as social anxiety, panic due to insecurity, economic recession and severe psychological stress, which requires coordinated efforts to prevent and control them, and people should follow the advice and the suggestions of government officials and the World Health Organization to make the necessary and at the same time contrary to the internal desire in their daily plan.

**Lessons Learnt From COVID-19** While COVID-19 has given rise to new challenges and uncertainties, the pandemic has also yielded some valuable lessons.

Here are some of it

**Hygiene awareness-** We have inculcated many good habits. proper hand wash before food , maintaining good sanitised hands, cleaning ourself regularly, maintaining social distancing and wearing a mask.

**Our minds matter:** While the COVID-19 pandemic has prompted newfound worries, it's also forced us to slow down and evaluate how we cope with stress. Has this resulted in a desire to learn yoga, meditation or mindfulness? Whatever the path to reducing stress and improving mental wellness, it's worth staying the course once things return closer to where they used to be.

**Essential workers are heroes** - delivery drivers, supermarket employees, health care professionals and other essential workers are finally receiving the recognition they deserve. The sacrifices they've particularly made during this pandemic haven't gone unnoticed. Showing gratitude for these everyday heroes will go a long way toward building lasting goodwill.

**Priority Shift-** We have started to prioritize our family and friends over work - Before the coronavirus dominated our lives, many of us may have taken human interaction for granted. Spending time with our immediate loved ones now, however, has taken center stage. It's important to reflect on what our family and friends truly mean to us. As restrictions begin to lift, seeing those we haven't been able to connect with face-to-face will feel that much more special. In the End, Nobody knows what the ultimate outcome of the COVID-19 crisis will be, but one thing is certain—we are stronger when we act together. The lessons we absorb and the energy we put into making positive choices today will make a meaningful difference tomorrow.

## THEME 2: EXPERIENCES OF WOMEN, CHILDREN AND AGED IN ACCESSING HEALTH CARE DURING THE COVID



**Sayyed Rehan Hasan**

*Programme:* BSc. in Dialysis Technology

*State:* Maharashtra

*Batch and Semester:* 2021-2024 Semester-5

*Academic Facilitator and location:* Apex Kidney Care Pvt. Ltd.-Malad

*Knowledge Partner for Skill Training and location:* Rehbar Foundation Shatabdi Hospital-Govandi

*Any Work Experience:*2 years

Experiences of women, children and aged in accessing health care during the COVID-19 time The COVID-19 pandemic has ushered in unprecedented challenges for healthcare systems worldwide, creating significant hurdles for vulnerable populations, including women, children, and the elderly. Accessing adequate healthcare has been a persistent struggle for these groups, exacerbated by the unique circumstances imposed by the pandemic. From limited access to essential services to a surge in mental health concerns, these communities have faced a myriad of challenges that demand urgent attention and tailored solutions.



Women, an essential pillar of any society, have encountered distinct challenges during this period. In many communities, the pandemic has accentuated existing gender disparities, impacting their access to healthcare services. With strained healthcare facilities and resources redirected to combat the pandemic, services catering to maternal health, reproductive health, and family planning have suffered. The result has been an alarming rise in maternal mortality rates, especially in regions with already limited access to adequate healthcare. Women, particularly those from marginalized communities, have faced increased difficulty in accessing vital services, including prenatal care, safe deliveries, and postnatal support. Additionally, disruptions in routine health check-ups have affected the early detection of conditions such as breast and cervical cancers, further underscoring the need for targeted interventions and improved healthcare infrastructure for women.

Children, another vulnerable group, have faced unique challenges in accessing healthcare during the COVID-19 era. With the closure of schools and limited access to immunization programs, children's health has been jeopardized, leaving many susceptible to preventable diseases. The disruptions in routine vaccination campaigns have led to concerns about potential outbreaks of vaccine-preventable illnesses, causing a ripple effect that could have long-term consequences on public health. Moreover, the shift to online education has also amplified the issue of children's mental health, with many experiencing heightened stress, anxiety, and isolation, further necessitating comprehensive mental health support and accessible counseling services tailored to their needs.

The elderly, already grappling with age-related health concerns, have faced a multitude of challenges during the pandemic. With many senior citizens experiencing isolation due to necessary social distancing measures, their mental and emotional well-being has been adversely affected. The closure of senior centers and limited access to caregivers have intensified feelings of loneliness and abandonment, contributing to a surge in mental health issues such as depression and anxiety among the elderly population.

In conclusion, the experiences of women, children, and the elderly in accessing healthcare during the COVID-19 era have underscored the need for concerted efforts to address the existing gaps in healthcare provision. By implementing targeted interventions, fostering collaboration between stakeholders, and investing in resilient healthcare infrastructure, societies can strive towards creating a more inclusive and equitable healthcare system that prioritizes the well-being of all individuals, especially those most vulnerable during times of crisis.



**Safiya Khan**

*Programme:* BSc. in Dialysis Technology

*Batch:* 2019-2022

*Year of completion:*2022

*Academic Facilitator:* Apex Kidney Care Pvt. Ltd-Malad

*KPST:* AKC-Sushrut Hospital and Research Center

### **Experiences of Women, Children, and the Elderly in Accessing Healthcare During the COVID-19 Pandemic**

The COVID-19 pandemic has had a profound impact on various aspects of society, including access to healthcare services. Vulnerable populations, such as women, children, and the elderly, have faced unique challenges in seeking medical care during these unprecedented times. Here we will explore the experiences of these groups and shed light on the obstacles they have encountered in accessing healthcare services.

*Women's Experiences:* Women have faced numerous challenges in accessing healthcare during the COVID-19 pandemic. Many routine check-ups, prenatal care visits, and reproductive health services have been disrupted or postponed. Additionally, women have reported difficulties in seeking care for non-COVID-related issues due to overwhelmed healthcare systems and fear of exposure to the virus

*Children's Experiences:* Children have also been significantly affected by the pandemic in terms of accessing healthcare. Routine immunizations, well-child visits, and developmental screenings have been delayed or canceled, potentially leading to long-term health consequences. Children with chronic illnesses or special needs have faced additional challenges in managing their conditions, as specialized care and therapies have been disrupted.

*Experiences of the Elderly:* The elderly population, particularly those with pre-existing health conditions, have been at higher risk of severe illness from COVID-19. As a result, many older adults have been hesitant to seek medical care, fearing exposure to the virus in healthcare settings. This has led to delayed diagnoses, inadequate management of chronic conditions, and increased isolation. Access to home healthcare services and support for caregivers has also been limited, placing additional strain on the elderly and their families.

*Addressing the Challenges:* Efforts have been made to mitigate the challenges faced by these vulnerable groups. Healthcare providers have implemented safety measures to ensure the protection of patients and staff, such as separate COVID-19 and non-COVID-19 care areas. Public health campaigns have also been launched to raise awareness about the importance of seeking timely healthcare and the availability of services.

In conclusion, the COVID-19 pandemic has presented significant obstacles for women, children, and the elderly in accessing healthcare services. Disruptions in routine care, limited access to specialized services, and fear of exposure to the virus have all contributed to these challenges. It is crucial for healthcare professionals to adapt and find innovative solutions to ensure the well-being of these vulnerable populations



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### **Experiences of women, children and aged in accessing health care during the COVID-19 time**

#### **Introduction**

Coronavirus disease 2019 (COVID-19) was declared a pandemic on March 11, 2020, and in India, a lockdown was imposed from March 24, 2020. The COVID-19 pandemic was largely characterized by widespread lockdowns to prevent infection spread.

The COVID-19 pandemic had a significant impact on health services around the world. Hospitals and clinics were overwhelmed by the overflow of patients, leading to delays and disruptions in care. In some cases, non-emergency medical procedures were postponed or cancelled to prioritize more urgent cases. This caused concern among pregnant women, who were worried about their ability to access the care they needed during this difficult time. As a result, it was more important than ever for pregnant women to utilize these services to ensure the health and safety of both themselves and their unborn children.

Furthermore, the pandemic also led to overburdened and limited staff in healthcare facilities, as some healthcare workers fell ill or were quarantined. This further strained the ability of these facilities to provide timely and effective care to all patients as well as pregnant women. Additionally, the fear of contracting the virus also led to a decrease in the number of people seeking medical care, even for urgent or life-threatening conditions. This resulted in a decrease in the overall utilization of maternal health services, which could have serious consequences for pregnant women who may be at higher risk for complications. Overall, the COVID-19 pandemic had a significant impact on health services, leading to delays, disruptions, and reduced access to care for many patients, including pregnant women

The COVID-19 pandemic had a significant impact on antenatal services, as many pregnant women were hesitant to seek care due to concerns about contracting the virus. A study conducted in Delhi, India, reported that there was a significant decline in the utilization of antenatal visits during the pandemic, with a decrease of up to 80%. It also reported that pregnant women who did seek care experienced longer wait times and delays in receiving the care they needed. This could have serious consequences, as timely and regular antenatal care is crucial for the health and well-being of both the mother and the fetus/newborn.

## **CONTENT**

Various studies were conducted to find the proportion of maternal healthcare services utilization or reduction in utilization] but not much is known about the real-life experiences of the women or health workers in rural India. So, it remains crucial to find out the reasons which lead to change in the utilization of maternal healthcare services, its facilitators and barriers, and the experiences of women during that period.

This study was conducted with the objective of identifying the facilitators and barriers to maternal healthcare services utilization during the COVID-19 pandemic.

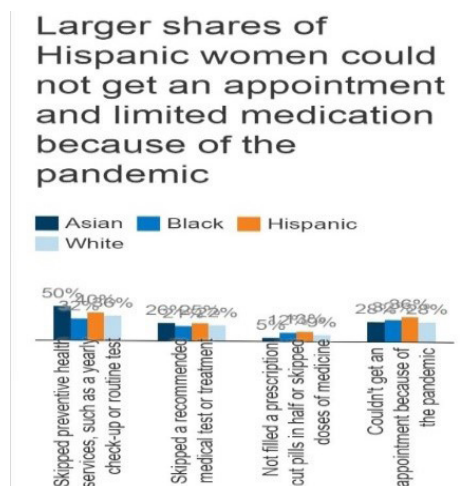
Women are more likely to have gone without health care during the pandemic compared to men, and women with health and economic challenges prior to the pandemic have experienced worsening health conditions as a result of skipping health care services during the pandemic. These gaps in care could translate into higher numbers of women experiencing severe health issues after the health emergency from the pandemic resolves.

People have been largely satisfied with their telemedicine interactions. The share of men and women who at the time of the survey reported having a telemedicine visit during the pandemic tripled since before the pandemic. But not all have had the opportunity or access to telemedicine. Older women, women with higher educational attainment, insured women, and women living in states that have expanded Medicaid are more likely to have had a telehealth visit during the pandemic. While telemedicine played an important role during the pandemic, is it still not clear whether it will continue to be an approach that providers and health consumers will continue to utilize at high rates as the risk of exposure to the coronavirus recedes. Women with private insurance and Medicaid are nearly twice as likely to have received a COVID-19 test compared to uninsured women (45% and 41% vs. 28%).

Uninsured individuals may have been less likely to seek a test out of fear of cost, which could have implications for uptake of COVID-19 vaccines, even though all COVID-19 vaccines are free regardless of insurance status. The pandemic has had a significant effect on people's mental health, with 51% of women and 34% of men saying that worry or stress related to the pandemic has affected their mental health. Most say that the impact has been moderate or minor, but almost one-fifth (21% women, 17% men) say the toll has taken a major impact on their mental health. The high need for mental health care has highlighted long-standing gaps in the availability and signals that the demand will likely continue as people begin to process the trauma and loss they have experienced over the years.

countries affected by extreme poverty or conflict, where gender disparities in education are highest. In Mali, Niger, and South Sudan, three countries with some of the lowest enrolment and completion rates for girls, closures have forced over four million girls out of school.





Meanwhile, in Zambia, where the rate of girls dropping out from grade seven onwards is almost twice the rate of boys, the government decided to close all schools before a single case of coronavirus was reported. In the medium- to long-term, the closure of schools will have a negative impact on education outcomes for both girls and boys alike. But more worryingly, considering the economic difficulties wrought by COVID-19 and the increased risk of teenage pregnancies during lockdowns, many girls will be unable to go back to school again.

### *Policy recommendations*

Policymakers need to incorporate a gender analysis into the development of COVID-19 policies and as the pandemic unfolds, there is urgent need for sex-disaggregated data to fully understand how women and men are affected by the virus. Understanding the impact of lockdowns on women and girls could lead to the development and implementation of other effective policy measures. Similarly, assessing the gendered aspects of minimising disruptions and maintaining supply chains for essential items is likely to lead to better outcomes for all, men and women.

Unconditional cash transfers to women bank account holders are expected to improve the financial and intra-household status of female beneficiaries, as well as their psychosocial well-being. Governments should, therefore, target beneficiaries under as many schemes as possible to ensure maximum reach.

As the lockdowns are eased, creating accessible information portals on job availability would help both men and women match with potential employers, especially in urban areas. More than ever, technology is going to be at the core of our “new normal” and bridging the digital gap will increase girls’ and women’s chances of accessing education and jobs.

Admittedly, we are only learning the socio-economic implications of this health crisis as it unfolds. In order to address any gendered effects, one must take into account the fact that the short-term implications may differ from the long-term. There may be forces working in both directions, reducing versus increasing gender inequality. We must, therefore, have flexible policy tools to address women’s concerns as the effects of the health crisis evolve over time.

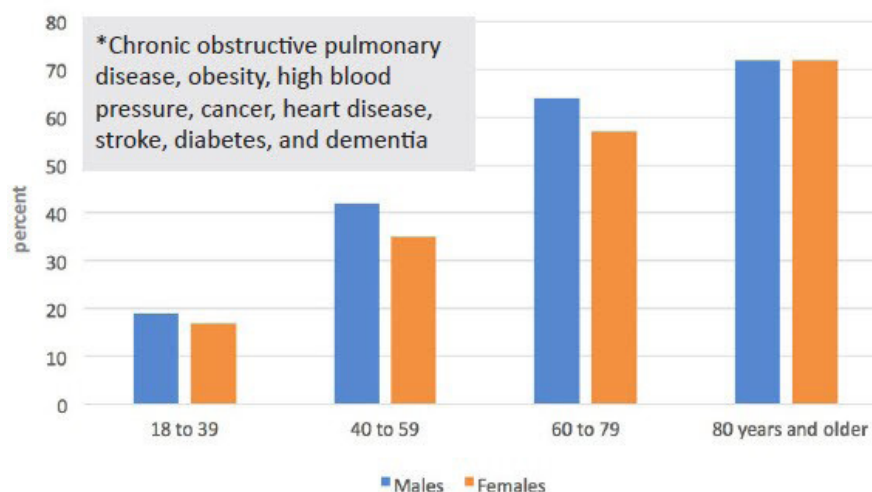
## Conclusion

The coronavirus disease continues to spread across the world following a trajectory that is difficult to predict. The health, humanitarian and socio-economic policies adopted by countries will determine the speed and strength of the recovery. The ILO's four pillar policy framework presented in this brief provides guidance not only for countries as they progress through the various phases of the crisis, but also for the International community as a whole. There must be a global human-centred response which is grounded in solidarity.

International Labour Standards contain guidance for ensuring decent work that is applicable even in the unparalleled context of the COVID 19 crisis. In particular, the Employment and Decent Work for Peace and Resilience Recommendation, 2017 (No. 205) emphasizes that crisis responses need to “ensure respect for all human rights and the rule of law, including respect for fundamental principles and rights at work and for international labour standards”. The standards dealing with safety and health at work, social security, employment, non-discrimination, working arrangements and the protection of specific categories of workers provide guidance on the design of rapid responses that can facilitate a stronger recovery from the crisis.

A coordinated global effort is required to support countries that currently do not have sufficient fiscal space to finance social policy, in particular universal social protection systems. Debt sustainability should be prioritized in this endeavour.

Without long-term structural changes, the deep-rooted inequalities exposed by the crisis will merely intensify. As well as tackling the immediate effects of the crisis, the international community now has a unique opportunity to adopt policies aimed at achieving social justice and a human centred future of work.



Source: Statistics Canada, Canadian Community Health Survey, 2017-2018.

### THEME 3: SKILL EDUCATION IN HEALTHCARE SECTOR



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#### Skill education in Healthcare sector – Dialysis Technology

The healthcare sector is constantly evolving, with advancements in technology and treatment methods revolutionizing patient care. One area that has seen significant growth and importance is dialysis technology. Skill education in dialysis technology plays a crucial role in ensuring that healthcare professionals are equipped with the necessary knowledge and expertise to provide quality care to patients in need of renal support.

Dialysis technology refers to the process of removing waste products and excess fluids from the blood when the kidneys are unable to perform this function adequately. It is a life-saving procedure for individuals with end-stage renal disease or other kidney-related conditions. Skill education in this field focuses on training healthcare professionals to perform dialysis procedures effectively and safely.

Comprehensive training programs are designed to provide healthcare professionals with a deep understanding of the principles and practices involved in dialysis treatment. These programs cover various aspects, including the different types of dialysis, such as hemodialysis and peritoneal dialysis, and their respective techniques. Healthcare professionals learn about the equipment used in dialysis, including dialysis machines, filters, and catheters, and gain expertise in their operation and maintenance.

One of the key components of skill education in dialysis technology is infection control. Healthcare professionals are trained in proper hygiene practices, aseptic techniques, and the prevention of cross-contamination. They learn how to maintain a sterile environment during dialysis procedures to minimize the risk of infections for patients.

Patient care is another critical aspect of skill education in dialysis technology. Healthcare professionals are trained to provide compassionate care to patients undergoing dialysis treatment. They learn how to assess vital signs, monitor patients during the procedure, and recognize and respond to any complications or emergencies that may arise. This ensures the safety and well-being of patients throughout their dialysis sessions.

Practical training is an integral part of skill education in dialysis technology. Healthcare professionals have the opportunity to apply their knowledge and skills in real-life scenarios, working under the guidance of experienced practitioners. This hands-on experience helps them develop the necessary skills to perform dialysis procedures confidently and efficiently.

Skill education in dialysis technology also emphasizes the importance of continuous professional development. Healthcare professionals are encouraged to stay updated with the latest advancements in dialysis technology, attend workshops and conferences, and engage in ongoing learning to enhance their knowledge and skills in this field.

By investing in skill education in dialysis technology, healthcare organizations can ensure that their staff is well-prepared to provide high-quality care to individuals with renal conditions. Skilled healthcare professionals can make a significant difference in the lives of patients, improving their overall well-being and quality of life.

In conclusion, skill education in dialysis technology is of utmost importance in the healthcare sector. It equips healthcare professionals with the necessary knowledge, expertise, and practical skills to perform dialysis procedures effectively and safely. By investing in skill education, healthcare organizations can ensure that patients receive the best possible care, leading to improved outcomes and a better quality of life for individuals with renal conditions.



## THEME 4: CAREER OPTIONS IN HEALTHCARE



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*State:* Maharashtra

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### **Career options in healthcare**

Exploring Diverse Career Options in the Healthcare Sector

The healthcare sector is a vast and dynamic field, offering a multitude of career options for individuals with various interests and skills. As the demand for healthcare professionals continues to grow, now is an opportune time to explore the diverse paths available within this rewarding industry.

#### 1. Medical Practitioners:

Physicians:- Diagnose and treat illnesses, specializing in fields like internal medicine, surgery, or pediatrics.

Nurses:- Provide essential patient care, with specialties such as critical care, pediatric, or psychiatric nursing.

#### 2. Allied Health Professionals:

Physical Therapists:- Assist patients in regaining mobility and managing pain.

Occupational Therapists:- Help individuals improve their ability to perform daily activities.

Radiologic Technologists:- Operate imaging equipment to assist in medical diagnoses.

#### 3. Healthcare Administration:

Healthcare Administrators: Manage and coordinate the day-to-day operations of healthcare facilities.

Health Information Managers: Oversee the organization and security of patient data.

#### 4. Medical Research and Development:

Clinical Research Associates:- Coordinate and monitor clinical trials to advance medical research.

Biomedical Scientists:- Conduct laboratory research to enhance our understanding of diseases.

#### 5. Health Informatics:

Health Informaticians: Utilize technology to manage and analyze health information, contributing to improved patient care.

6. Mental Health Professionals:

Psychiatrists and Psychologists:- Diagnose and treat mental health conditions, offering therapy and counseling services.

7. Pharmaceutical and Biotechnology:

Pharmacists:- Dispense medications and offer expertise on their usage.

Biomedical Engineers:-Innovate and develop medical devices and technologies.

8. Public Health:

- Epidemiologists:-Study patterns and causes of diseases to improve public health.

**Health care also involves jobs like**

1. *Medical Laboratory Scientist:*

a. Specializations: Clinical Chemistry, Microbiology, Hematology, etc.

b. Roles: Conduct laboratory tests to aid in medical diagnosis.

2. *Radiologic Technologist:*

a. Specializations: X-ray, MRI, CT, Nuclear Medicine, etc.

b. Roles: Perform diagnostic imaging procedures.

3. *Health Information Manager/Administrator:*

Roles: Manage and organize health information data, oversee healthcare facilities.

4. *Health Educator:*

Roles: Provide education on health-related topics, develop programs to promote wellness.

5. *Biomedical Engineer:*

Roles: Design and maintain medical equipment, develop new healthcare technologies.

6. *Healthcare IT Specialist:*

Roles: Manage and implement healthcare information systems, ensure data security and compliance.

7. *Clinical Researcher:*

Roles: Conduct clinical trials, collect and analyze data, contribute to medical advancements.

8. *Nutritionist/Dietitian:*

Roles: Assess and promote healthy dietary habits, work in hospitals, clinics, or private practice.

9. *Public Health Professional:*

Roles: Disease prevention, health policy development, community health promotion.

10. *Healthcare Consultant:*

Roles: Provide advice on healthcare management, strategy, and operations.

11. *Social Worker (Medical):*

Roles: Support patients and families in coping with medical challenges, coordinate resources.



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*Batch:* 2019-2022

*Year of Completion:* 2022

*KPST name and location:* Apex Kidney Care Dialysis center-Malad

*Academic Facilitator:* Apex Kidney Care-Malad

### **Career Options in Healthcare:**

#### **Self-Employment Opportunities and Advantages Over Other Fields**

The healthcare industry offers a plethora of career options, making it an attractive field for individuals seeking diverse and rewarding professional paths. From medical practitioners to administrative roles, healthcare provides a wide range of opportunities for those passionate about making a difference in people's lives. We will delve into the various career options available in healthcare, explore self-employment opportunities, and highlight the advantages of pursuing a career in this field over others.

#### *Career Options in Healthcare:*

The healthcare industry encompasses a broad spectrum of professions. Medical professionals, such as doctors, nurses, and pharmacists, play a vital role in diagnosing and treating patients. Allied health professionals, including physical therapists, occupational therapists, and medical technologists, provide specialized services to aid in patient recovery and rehabilitation. Additionally, healthcare management offers administrative roles, while support positions like medical coding and billing ensure smooth operations.

#### *Self-Employment Opportunities:*

One of the significant advantages of a healthcare career is the potential for self-employment. Healthcare professionals can establish their own private practices, offering specialized services tailored to their expertise. This autonomy allows practitioners to have greater control over their work environment, patient care, and business decisions. Consultants in healthcare can also provide specialized advice and services to organizations, further expanding self-employment opportunities.

#### **Advantages of Healthcare over Other Fields:**

1. **Job Stability and Security:** The demand for healthcare professionals continues to grow, providing a stable and secure job market. Healthcare is less susceptible to economic downturns compared to other industries, ensuring a consistent need for qualified professionals.
2. **Impactful Work:** Healthcare professionals have the unique opportunity to make a positive impact on people's lives. By improving health and well-being, they contribute to the overall betterment of society. The sense of fulfillment derived from helping others is a significant advantage of a healthcare career.

3. **Continuous Learning and Growth:** The healthcare field is dynamic and constantly evolving. Advancements in medical research and technology present new challenges and opportunities for professionals to expand their knowledge and skills. Continuous learning and professional growth are inherent to a healthcare career.
4. **Diverse Career Paths:** Healthcare offers a wide range of career options, allowing individuals to find their niche and pursue their passion. Whether it's direct patient care, research, administration, or technology, there is a healthcare career path to suit various interests and skill sets.
5. **Collaboration and Teamwork:** Healthcare professionals often work in interdisciplinary teams, fostering collaboration and teamwork. This collaborative environment promotes knowledge sharing, enhances problem-solving abilities, and provides a supportive network of colleagues.

In my conclusion, a career in healthcare offers a multitude of options, self-employment opportunities, and advantages over other fields. The stability, job security, and the ability to make a positive impact on people's lives are just a few of the benefits. Whether you aspire to be a medical practitioner, allied health professional, or pursue a career in healthcare management, the industry provides a fulfilling and rewarding path. Embrace the diverse opportunities in healthcare and embark on a journey that combines passion, purpose, and professional growth.



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*Batch:* 2021-2024

*Semester:* 5

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## **CAREER OPTIONS IN HEALTHCARE SELF-EMPLOYMENT**

### *Private Practice*

Becoming a healthcare professional, such as a doctor, dentist, or therapist, opens up the possibility of starting a private practice. This allows you to control your schedule, patient load, and the overall approach to patient care. For students who dream of autonomy and entrepreneurship, private practice offers a unique opportunity.



### *Home Healthcare Services*

Providing care for patients in the comfort of their own homes is another self-employment option within healthcare. Registered nurses, home health aides, and therapists can offer their services independently, making it a flexible and rewarding career choice.

### *Medical Transcription*

Medical transcriptionists convert audio recordings of medical professionals into written documents. This role can be pursued independently or as part of a freelance business, making it an attractive option for students who excel in language skills and enjoy flexibility.

### *Health and Wellness Coaching*

It coaches work with clients to improve their overall well-being, offering guidance on nutrition, exercise, and lifestyle choices. This field has grown significantly in recent years, and students with a passion for promoting a healthy lifestyle can make a meaningful impact through self-employment.

### *Medical Writing*

For those with strong writing skills and a keen interest in healthcare, medical writing is a burgeoning field. Freelance medical writers create content for medical journals, websites, and pharmaceutical companies, making it a flexible and intellectually stimulating option.

## **ADVANTAGES OF HEALTHCARE SELF-EMPLOYMENT**

### *Autonomy*

One of the most significant advantages of self-employment in healthcare is the level of autonomy it offers. You have the freedom to make decisions regarding your practice or business, from setting your work hours to choosing your patients and services.

### *Flexibility*

Self-employment allows students to create a work-life balance that suits their needs. You can adapt your schedule to accommodate personal commitments, which is often challenging in traditional employment settings.

### *Income Potential*

While building a successful self-employed healthcare career may take time, it has the potential for substantial financial rewards. As you gain experience and clientele, you can increase your rates and earnings.

### *Diverse Career Paths*

Healthcare self-employment offers a wide range of career options, as discussed earlier. Whether you are interested in patient care, technology, research, or writing, there's a niche within healthcare that can align with your skills and interests.

### *Impact and Fulfillment*

Self-employment in healthcare allows you to have a more direct impact on patient care and outcomes. The sense of personal achievement and fulfillment can be profoundly rewarding.

## COMPARING HEALTHCARE SELF-EMPLOYMENT TO OTHER FIELDS

In comparison to self-employment in other fields, healthcare stands out for several reasons. First, it is a recession-resistant industry, meaning that there will always be a demand for healthcare professionals. This stability can provide a sense of security for students considering self-employment.

Moreover, healthcare offers the opportunity to make a meaningful difference in people's lives. The sense of purpose and the chance to contribute to the well-being of society can be incredibly fulfilling.

In contrast to many other self-employed professions, healthcare typically requires a strong educational foundation. While this can be time-consuming and expensive, it often results in higher earning potential in the long run.

In a nut shell, healthcare self-employment is an exciting and viable option for students looking to embark on a career path that offers autonomy, flexibility, and the potential for significant impact. With diverse career options and a growing demand for healthcare services, self-employment in healthcare is a path worth considering. As a student, exploring these opportunities and building the necessary skills and knowledge will be crucial in setting the foundation for a rewarding and self-driven career in healthcare.

## THEME 5: NATIONAL AND GLOBAL CONCERNS (DEBATES ON PUBLIC HEALTH POLICIES - ACCESS, EQUITY, AND SKILL EDUCATION)



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*State:* Maharashtra

*Semester:* 5

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*KPST:* Nirali A.M Naik Charitable Facility Land T, Powai

## NATIONAL AND GLOBAL CONCERNS (DEBATES ON PUBLIC HEALTH POLICIES - ACCESS, EQUITY, AND SKILL EDUCATION)

In today's interconnected world, the issues surrounding public health policies are more pertinent than ever. Access to quality healthcare, equity in health outcomes, and the importance of skill education are topics that resonate deeply with students across the globe. As the future generation, we are profoundly invested in the discussions and debates surrounding these issues. We will discuss the national and global concerns surrounding public health policies from a student's perspective, focusing on the key themes of access, equity, and skill education.

### *Access to quality healthcare*

It is a fundamental human right. Yet, disparities in healthcare access continue to persist, both within nations and globally. Students understand that a robust public health policy should ensure that everyone has access to essential healthcare services without the burden of financial hardship. The availability of affordable healthcare, irrespective of one's socio-economic background, is vital in ensuring a healthy society.

However, the reality is often far from the ideal. Many students have witnessed the struggles of individuals who cannot afford essential healthcare or medicines. High treatment costs, limited healthcare infrastructure, and unequal distribution of medical facilities are glaring issues that public health policies must address. Students advocate for reforms that promote universal healthcare systems, healthcare subsidies, and initiatives to make essential medicines more accessible to all.

### *Equity in Health Outcomes*

The debate on equity in health outcomes has gained momentum in recent years. It is not enough to provide access to healthcare; we must also address disparities in health outcomes based on race, ethnicity, gender, and socio-economic status. Students believe that public health policies should focus on eliminating these disparities to ensure that everyone has an equal opportunity for a healthy life. The COVID-19 pandemic has vividly highlighted the disparities in health outcomes. Students have witnessed how marginalized communities have borne the brunt of the pandemic due to pre-existing health inequalities. Public health policies must actively work towards reducing these disparities, ensuring that everyone, regardless of their background, has the same chance of leading a healthy life.

### *Skill Education: A Cornerstone of Public Health*

Beyond healthcare access and equity, skill education plays a crucial role in public health policies. Students recognize the need for comprehensive health education that goes beyond the classroom and empowers individuals to make informed decisions about their well-being. Skills like stress management, nutrition, and mental health awareness are as important as traditional academic subjects. Additionally, students are pushing for education systems that equip them with practical skills to lead a healthy life. Basic first aid, CPR training, and knowledge about preventive measures for common health issues can save lives. Public health policies should incorporate these elements into the curriculum, promoting a holistic approach to health education.

### *Global Perspective on Public Health*

In an era of globalization, the concerns of public health policies are not limited to national borders. Students acknowledge the interdependence of nations and the role of international collaboration in addressing global health issues. The COVID-19 pandemic serves as a stark reminder that global health crises require a coordinated response.

Students advocate for stronger international partnerships, sharing of resources, and knowledge exchange to tackle global health challenges. Vaccine equity, for instance, has emerged as a pressing issue. We believe that everyone, regardless of their location, should have access to vaccines to combat the spread of diseases.

As students, we are deeply engaged in the debates surrounding public health policies, with a focus on access, equity, and skill education. We recognize the importance of universal healthcare, the elimination of health disparities, and the integration of skill education into public health initiatives. Moreover, we emphasize the significance of global cooperation in addressing pressing health challenges. The future of public health lies in our hands, and we are committed to advocating for policies that prioritize the well-being of all individuals, both nationally and globally. Public health is not just a policy; it is a shared responsibility that we, as students, are determined to uphold.



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### **National and Global Concerns: Debates on Public Health Policies - Access, Equity, and Skill Education**

Public health policies play a crucial role in addressing the health needs of individuals and communities, both at the national and global levels. In recent years, debates surrounding access, equity, and skill education have gained significant attention in shaping these policies. In order to promote a healthier society, this article will examine the main issues and debates surrounding these subjects.

Access to healthcare remains a critical concern in many countries. Disparities in access can arise due to various factors, including geographical location, socioeconomic status, and cultural barriers. Public health policies must strive to ensure that all individuals have equal opportunities to access quality healthcare services. This includes improving and increasing healthcare workforce, and implementing strategies to reach underserved populations. Additionally, the integration of technology and telemedicine can help bridge the gap and provide healthcare access to remote areas.

Achieving equity in healthcare is another significant challenge. It involves addressing the underlying social determinants of health, such as income inequality, education, and discrimination. Public health policies should focus on reducing health disparities among different population groups. This can be achieved through targeted interventions, health promotion campaigns, and policies that address social and economic inequalities. By prioritizing equity, societies can work towards ensuring that everyone has an equal opportunity to attain optimal health outcomes.

Skill education plays a vital role in building a competent healthcare workforce. Public health policies should emphasize the importance of training and education for healthcare professionals, ensuring they possess the necessary skills to address emerging health challenges. This includes fostering research and innovation and providing continuous professional development opportunities. By investing in skill education, countries can strengthen their healthcare systems and enhance their capacity to respond effectively to public health crises.



Addressing national and global concerns in public health policies requires collaboration and cooperation among countries. Global health initiatives, such as the World Health Organization (WHO), provide a platform for sharing best practices, exchanging knowledge, and coordinating efforts to tackle common health challenges. By working together, nations can create a more inclusive and sustainable approach to public health.

The debates surrounding access, equity, and skill education in public health policies are crucial for creating a healthier and more equitable society. Governments, policymakers, and healthcare professionals must prioritize these concerns to ensure that healthcare services are accessible to all, regardless of their background or location. By addressing these challenges at both national and global levels, we can strive towards a future where everyone has the opportunity to lead a healthy and fulfilling life.

## THEME 6: EMERGING INNOVATIVE AND GOOD HEALTHCARE PRACTICES



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*Batch and Semester:* 2021-2024 Semester-5

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*Knowledge Partner for Skill Training and location:* Apex kidney Care Pvt LTD

### EMERGING INNOVATIVE AND GOOD HEALTHCARE PRACTICES

Healthcare is an ever-evolving field, marked by constant advancements in medical science, technology, and patient care. In recent years, there has been a notable surge in innovative healthcare practices that aim to improve the overall quality, efficiency, and accessibility of healthcare services. These practices encompass a wide range of strategies and approaches, with a common goal of enhancing patient outcomes and the healthcare experience. Here, we will explore some of the emerging innovative and good healthcare practices that are shaping the future of healthcare.

AI has transformed various aspects of healthcare, from diagnostics to administrative tasks. Machine learning algorithms can analyze medical images, predict patient outcomes, and streamline hospital operations. In radiology, AI has been particularly useful for the early detection of diseases such as cancer. AI-driven chatbots and virtual assistants have also improved patient engagement and support.

Wearable devices like fitness trackers, smart watches, and other health monitoring tools have empowered individuals to take control of their health. These devices can track vital signs, monitor sleep patterns, and even provide early warning signs of health issues. The data collected from wearables can be shared with healthcare providers for more informed decision-making and proactive healthcare management.

A shift towards preventive healthcare is gaining momentum. Healthcare providers and organizations are increasingly focusing on early detection and intervention to reduce the incidence of chronic diseases. This approach includes regular check-ups, vaccinations, and lifestyle management to promote better health and well-being.

Patient-centered care is a practice that prioritizes the individual needs and preferences of patients. It involves shared decision-making, active patient involvement in treatment plans, and a focus on empathy and communication. This approach leads to better patient satisfaction and improved treatment adherence.

Complementary and alternative therapies, such as acupuncture, yoga, and mindfulness meditation, are increasingly integrated into traditional medical care. Integrative medicine combines the best of both conventional and alternative therapies to provide holistic care that addresses physical, mental, and emotional well-being.

Value-based healthcare focuses on the quality and outcomes of care rather than the volume of services provided. This approach encourages healthcare providers to deliver cost-effective care that emphasizes patient well-being and improved health outcomes. It incentivizes the provision of high-value services while reducing unnecessary procedures and tests.

In conclusion, the emerging innovative and good healthcare practices are transforming the healthcare landscape in numerous ways. These practices strive to enhance patient care, promote wellness, and make healthcare more accessible and efficient. As technology continues to advance and our understanding of medicine deepens, we can expect even more groundbreaking healthcare practices to emerge, ultimately improving the overall health and well-being of individuals and communities around the world.

## THEME 7 : THE FUTURE OF HEALTH CARE



**Sheetal Sushilkumar Pandey**

*Programme:* BSc. In Dialysis Technology

*Batch and Semester:* 2021-2024 Sem 5

*Academic Facilitator and location:* Apex Kidney Care, Malad

*Knowledge Partner for Skill Training and location:* TMC Health Center, Rosa Gardenia, Thane

### **Title: Health Care Skill Education and Career Opportunities**

#### *Introduction:*

The field of healthcare is constantly evolving, with advancements in technology and an increasing demand for skilled professionals. As a result, the importance of health care skill education and the subsequent career opportunities it offers cannot be overstated. Here we aim to shed light on the significance of health care skill education and explore the diverse career paths available in this rewarding industry.

#### *The Importance of Health Care Skill Education:*

Health care skill education plays a pivotal role in preparing individuals for the challenges and complexities of the healthcare sector. It equips students with the necessary knowledge, technical expertise, and practical skills required to excel in various healthcare roles. From medical terminology and patient care to diagnostic procedures and treatment protocols, a comprehensive education in health care skills ensures that professionals are well-prepared to meet the demands of the industry.

#### *Career Opportunities in Health Care:*

The healthcare industry offers a wide range of career opportunities, catering to individuals with diverse interests and skill sets. Here are some prominent career paths within the healthcare sector:

- **Nursing:** Nursing is a highly respected profession that involves providing direct patient care, administering medications, and collaborating with other healthcare professionals. With specialized training, nurses can pursue careers in critical care, pediatrics, geriatrics, and more.
- **Pharmacy:** Pharmacists are responsible for dispensing medications, providing drug information, and ensuring patient safety. They can work in various settings, including hospitals, retail pharmacies, and pharmaceutical companies.
- **Health Informatics:** With the increasing use of electronic health records and data analysis, health informatics professionals are in high demand. They manage and analyze healthcare data to improve patient care, streamline processes, and enhance decision-making.
- **Healthcare Administration:** Healthcare administrators oversee the operations of healthcare facilities, ensuring efficient delivery of services, managing budgets, and implementing policies. This field offers opportunities in hospitals, clinics, insurance companies, and government agencies.

## **Conclusion**

Health care skill education opens doors to a multitude of rewarding career opportunities in the health-care industry. Whether one chooses to become a nurse, medical technologist, pharmacist, physical therapist, health informatics professional, or healthcare administrator, the demand for skilled professionals in these fields is ever-growing. By investing in health care skill education, individuals can embark on a fulfilling career path that not only offers stability and growth but also allows them to make a positive impact on the lives of others.



**Sonia Angelo Bhatang**

*Programme Pursuing:* BSc. in Dialysis Technology

*State:* Maharashtra

*Batch and Semester:*2021-2024 Semester-5

*Academic Facilitator and location:*Apex Kidney Care Pvt. Ltd.-Malad

*Knowledge Partner for Skill Training and location:* AKC Dialysis Center-Malad

## **Health Care Skill Education And Career Opportunities: A Pathway To A Rewarding Future**

In today's rapidly evolving world, the field of healthcare is a beacon of stability and opportunity. It offers a fulfilling career that goes beyond a paycheck, allowing individuals to make a tangible impact on the lives of others. For students, healthcare skill education not only opens doors to countless career opportunities but also provides a pathway to a truly rewarding future.

### **Diverse Career Choices**

One of the most exciting aspects of healthcare skill education is the vast array of career choices it offers. Students interested in healthcare can choose from a wide range of professions, including nursing, medical technology, physical therapy, pharmacy, and more. Whether you aspire to be a doctor, a radiologic technologist, or a dental hygienist, healthcare education can tailor your skills to your specific interests and strengths.

### **Constant Demand**

Healthcare is a recession-proof industry. Regardless of economic conditions, the need for healthcare professionals remains constant. The aging population, advances in medical technology, and the growing emphasis on preventive care ensure that job security in the healthcare field is remarkably high. This is particularly reassuring for students, who often worry about the job market and their ability to secure stable employment after graduation.



### *Fulfilling Work*

One of the most appealing aspects of a career in healthcare is the opportunity to make a real difference in people's lives. Healthcare professionals have the chance to provide care, comfort, and healing to those in need. From diagnosing illnesses to performing life-saving surgeries, healthcare workers play a vital role in the well-being of individuals and communities. The sense of purpose and the satisfaction derived from helping others is an immeasurable reward for those in the field.

### *Lucrative Salaries*

While a passion for helping others should be the primary motivator for entering the healthcare field, it's worth noting that many healthcare professions offer competitive salaries. This is especially attractive for students who invest time and resources in their education. High demand for healthcare professionals often translates into higher earning potential, making healthcare a financially rewarding career choice.

### *Ongoing Learning Opportunities*

Healthcare is an ever-evolving field. New discoveries, treatments, and technologies are constantly emerging. For students who enjoy learning and staying at the forefront of their field, healthcare offers a continuous stream of educational opportunities. Whether it's through additional certifications, specialization, or advanced degrees, healthcare professionals can continually enhance their knowledge and skills, leading to career advancement and increased job satisfaction.

### *Global Opportunities*

Healthcare skills are universally recognized and valued across the globe. This means that healthcare professionals often have the opportunity to work in different countries, experiencing diverse cultures and healthcare systems. This global mobility can be a dream come true for students who wish to explore the world while pursuing their careers.

### *Community Involvement*

Healthcare professionals often find themselves deeply ingrained in their communities, providing a sense of belonging and purpose. Whether working in a small clinic, a bustling hospital, or even in a remote area, healthcare workers become pillars of their communities, earning the respect and gratitude of those they serve. This deep connection to the community adds another layer of fulfillment to a healthcare career.

Ultimately, healthcare skill education is a pathway to a rewarding future for students. It offers diverse career choices, job security, fulfilling work, competitive salaries, ongoing learning opportunities, global mobility, and a strong sense of community involvement. As the healthcare field continues to evolve and expand, the opportunities for students interested in healthcare are limitless. So, if you have a passion for helping others and are ready to commit to a challenging yet immensely gratifying career, consider pursuing healthcare skill education. Your future self and the countless lives you will touch will thank you for it.



**Zubeda Afreen**

*Programme Pursuing:* B. Optom

*State:* Mumbai, Maharashtra

*Semester:* 5

*Year:* 2023-2024

*Knowledge Partner for Skill Training and Location:* Lenskart Academy

### **Health Care Skills Education And New Career Opportunities**

In today's rapidly evolving healthcare landscape, acquiring the right skills is crucial for a successful career. This article explores the diverse educational pathways and promising career opportunities within the healthcare sector.

#### 1. *Healthcare Skills Education:*

- **Traditional Degrees:** Discuss the importance of medical degrees (e.g., MD, DO) and nursing programs (e.g., BSN, MSN) in shaping healthcare professionals.
- **Specialized Certifications:** Highlight certifications like Medical Assistant, Pharmacy Technician, or EMT, which offer focused training and quicker entry into the workforce.
- **Online Learning:** Explore the rise of online platforms offering healthcare-related courses, making education accessible to a broader audience.

#### 2. *Emerging Healthcare Careers:*

- **Telemedicine Specialists:** Explore the growing demand for professionals adept at providing healthcare remotely through telecommunication technologies.
- **Health Informatics:** Discuss the role of data analysis and technology in healthcare, emphasizing careers related to managing healthcare data and information systems.
- **Genetic Counselors:** Delve into the field of genetics, where professionals help individuals and families understand genetic disorders and make informed decisions.

#### 3. *In-Demand Skills:*

- **Empathy and Communication:** Highlight the importance of soft skills in healthcare, focusing on effective communication and empathy when dealing with patients and their families.
- **Technological Proficiency:** Discuss the significance of being tech-savvy, especially in using Electronic Health Records (EHR) systems and other healthcare technologies.
- **Cultural Competence:** Emphasize the need for healthcare professionals to understand and respect diverse cultural backgrounds to provide inclusive and effective care.

4. *Career Advancement and Specializations:*

- **Advanced Practice Roles:** Discuss roles such as Nurse Practitioners, Physician Assistants, and Nurse Anesthetists, which require advanced education and offer increased responsibilities.
- **Healthcare Administration:** Explore careers in healthcare management, focusing on roles like Hospital Administrators and Healthcare Consultants.
- **Research and Academia:** Highlight opportunities in medical research, pharmaceuticals, and academia, where professionals contribute to advancing medical knowledge and education.

5. *Future Trends and Challenges:*

- **AI and Robotics:** Discuss the integration of artificial intelligence and robotics in healthcare, exploring how these technologies are transforming diagnostics, surgery, and patient care.
- **Public Health:** Address the growing importance of public health initiatives and careers, emphasizing the role of professionals in preventing diseases and promoting community well-being.
- **Mental Health Support:** Explore the increasing awareness around mental health, leading to a surge in demand for mental health professionals and counselors.

**Conclusion:**

As healthcare continues to evolve, staying informed about educational options and emerging career paths is vital. By acquiring the right skills and adapting to new trends, individuals can embark on fulfilling healthcare careers, making a meaningful difference in the lives of patients and communities.

## Section B: Skill Craft Narrative – My Experience



**Archana Vijayan**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Semester:* 3rd semester

*Academic Facilitator:* Lourde Institute of Paramedical Sciences

*Knowledge Partner for Skill Training:* Lourde Hospital

I came to know about TISS SSE from the advertisements, as I was searching in the social media. I always dreamt of joining TISS. So I referred about TISS University in Google, and also inquired many people who studied there. I was particularly interested in the Medical Lab Technology programme and when a former student referred it to me that motivated me a lot to explore and apply for the course. I was excited to apply for the MLT programme to enhance my skills and knowledge in vocational areas. The skill sets I have learnt to be able to work efficiently in the Healthcare sector in general are mainly empathy, patient safety, team work, stress management, positive attitude, and confidence. When I first joined in the 1st semester the people around me were not that familiar about MLT and I explained about course to them. After all, the healthcare sector relies on teamwork, as a student of BSC MLT I engaged in group projects and simulations, building skills in collaboration, teamwork, and inter professional communication. I have learnt the importance of professional ethics and patient confidentiality since I began my training at a reputed private hospital. I learnt ethical principles, professional conduct, patient rights, and legal regulations as I performed in my OJT. Seeing that the healthcare sector is dynamic and constantly evolving MLT programme instilled in me a mind-set of lifelong learning, encouraging individuals to stay updated with the latest advancements, research, and best practices. I am sure that after the completion of the course, I will have many options open for either pursuing my career or taking up a job as a lab technician which is highly lucrative. I also am thankful to my University for giving me such a big opportunity to study as I work, providing me a strong academic reputation, high quality faculty and best resources, a wide range of academic and extra-curricular opportunities.



**Anshaba K.A**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* 2023-2026 batch and 1st semester

*Academic Facilitator:* Lourde Institute of Paramedical Sciences (Kanate Foundation).

#### *My Experience About the Programme*

I came to know about TISSSE and the programme from my search for a better paramedical course in social media. I always wanted to opt a course on hospital management field and had searched for various courses, and then I selected BSc in Medical Laboratory Technology. Working as a medical laboratory technician is a challenging yet rewarding career, because it plays a vital role in the healthcare system. By performing laboratory tests that help diagnose and treat diseases, and work in a laboratory are considered vital for analysing bodily fluids and tissues, such as blood, urine, and tissue samples. We use sophisticated equipment and technology to perform their work accurately and efficiently. Medical laboratory technicians must have a strong background in science and laboratory techniques. We must also be able to work well under pressure and have excellent attention to detail. The satisfaction of knowing that we are helping to improve the lives of patients by providing accurate and timely test results makes it all worthwhile. The demand for medical laboratory technicians is expected to grow in the coming years, making it a stable and promising career choice. The generic subject will develop our communication skill and knowledge on how to behave at the workplace and with people around us. I chose this course because I wanted a job and also needed more chances for a better profession too. The lecturers who are teaching me are excellent at their lectures and are doing their best to make us more knowledgeable towards our subjects and I am sure that this will give me the right direction to achieve my goal. I am so much happy to be a part of this family and a part of TISS SSE.





**Muhammed Siyad T P**

*Programme: Medical Lab Technology  
Batch – 2020-2023*

*Academic Facilitator: Iqraa Academy , Calicut*

I was a student at TISS SSE 2020-2023 batch and I must say that it is one of the places that made me grow immensely, strengthened my perspective on life and helped me find friends for life. I Had a momentous and vibrant learning experience at Iqraa academy and Iqraa hospital. Received the best training from the skilled training providers. After my bachelor's degree in medical lab technology at Iqraa Academy, I wanted to pursue a masters degree in hospital administration & medical tourism. Now I am a student at yenepoya university Karnataka . TISS SSE was indeed one of the best decisions of my life .



**Nihala T K**

*Programme: BSc in MLT*

*Batch: 2020- 2023*

*Academic Facilitator: Iqraa Academy, Kerala*

I am Nihala,I pursued B voc in MLT at Iqraa academy of Iqraa international hospital and research center Calicut, Kerala, during 2020-2023. During the course I got clinical posting from the Iqraa international hospital. currently lam working as a lab technologist trainee at Iqraa community clinic, a working periphery of the same hospital. I got to know about the TISS SSE from my friends as it is very popular among Premier institute and always wanted to become a medical professional so that I chose the best. I got the best training in my course with the help of teachers and other skill supporters. I acquired maximum potential to become a perfect medical aid. Because of the intermittent posting and theory classes. I became more conscious about my medical career within the course duration and it does meet my expectations. TISS SSE along with Iqraa academy exerted a significant role in pursuing my career.



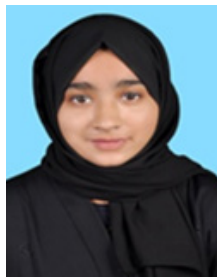
**Shyam G**

Programme: BSc. in MLT

Batch 2020- 2023

*Academic Facilitator: Iqraa Academy*

I am Shyam, was a student at Iqraa academy calicut (2020-2023) . TISS SSE is one of the reputed institutions in their field. A degree from TISS SSE is surely recognized. I received the best classes and training from Iqraa academy and the best training from Iqraa international hospital laboratory. The course was intense. But it helped me well while trying to get a master's degree. Now I am pursuing masters in hospital administration and medical tourism at Yenepoya University Karnataka.



**Jahana Sherin FM**

I was a student at TISS SSE in 2020-2023 batch and I must say that it is one of the places that made me grow immensely, strengthen my perspective on life. I Had a momentous and vibrant learning experience at Iqraa academy and Iqraa hospital. Received the best training from the skilled training provider. After my bachelor's degree in medical imaging technology at Iqraa Academy, I wanted to pursue a masters degree in hospital administration. Now am a student at yenepoya university Karnataka . TISS SSE was indeed one of the best decisions of my life .



**Nafil.kk**

Programme: Medical Imaging Technology

Batch: 2020-2023

*Academic Facilitator: Iqraa Acadmy  
Calicut, Kerala*

I am Nafil kk, was a student at Iqraa academy Calicut. Tata is brand of faith and work as own brand all field as production, education-csr activities, employee support always success.TISS is very faithful institute for health care studies for all and worldwide student come here for study and learn more theoretical work with field practical more and more creative mind develop by self or by faculty. I had received best classes and training from Iqraa academy and the best training from Iqraa international hospital radiology department. After my bachelor's degree in medical imaging technology at Iqraa Academy .Now I am pursuing masters in hospital administration and medical tourism at Yenepoya University Karnataka.



**Lulul Marjan K.P**

Programme: BSc. in MIT  
Batch: 2020-2023  
*Academic Facilitator: Iqraa Academy*  
Calicut , Kerala

I am Lulul Marjan K.P., I pursued BSc in MIT at Iqraa Academy of Iqraa International Hospital and Research Center Calicut, Kerala, during 2020-2023. The best part of TISS is the field work opportunity that we get. Every semester we go to some reputed organization twice a week for experiencing the things that we have learnt in the class. For a student like me who has no prior work experience it becomes a tool to get familiarized with corporate world much before I will go for my summers. Hence it's a great learning experience at TISS. Now I am pursuing Masters in Hospital Administration Yenepoya University Karnataka. TISS along with Iqraa Academy exerted a significant role in pursuing my career.



**Abdul Basith. NK**

Programme: BSc in MIT  
Batch: 2017-2020  
*Academic Facilitator: Iqraa Academy*  
Calicut , Kerala

I pursued BSc in MIT at Iqraa Academy of Iqraa International Hospital and Research Center Calicut, Kerala, during 2017-2020 batch and I must say that it is one of the places that made me grow immensely, strengthen my perspective on life and helped me find friends for life! The selection I made was based on careful research, as I wanted to be in an environment where I would find people as passionate as myself, who cared about the world, which were fearless to speak their mind and had opinions to share. I got through the tedious rounds of examinations and once I was there, I was very sure that this was one of my best decisions ever. Now, reality hits you very soon in TISS, as you have amazing loads of work and field work where you work at the grass root level and apply the skills you learn from the amazing faculty! I can vouch for you to have a momentous and vibrant learning experience at TISS along with Iqraa Academy, which would teach you important lessons of life too. I had received best classes and training from Iqraa Academy and the best training from Iqraa International Hospital Radiology Department. After pursuing BSc MIT course, I got an opportunity to study post graduate in Public Health at London. After that currently I am working as a Band 5 Radiographer at Doncaster and Bassetlaw Teaching Hospital, United Kingdom.



**Muhammed Razi**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* 2022-2025 and 3rd semester

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences, Thaliparamba

*Knowledge Partner for Skill Training and location:* Lourde Hospital, Thaliparamba

When I came across the advertisement in various social media platforms I became interested in the BSc in MLT programme that TISS SSE was offering. Also when one of the seniors referred the same to me I became quite motivated to explore and apply for the programme.

As a student of this programmes I've got an opportunity to gain industry-relevant expertise, improve employability prospects in my career. Also the programme's reputation and accreditation motivated me to apply, as I understood the value of these credentials in health care jobs. The programme's accessibility and student-friendly approach often motivated me to seek education and professional development alongside my existing responsibilities.

During my skill training periods I learnt how to communicate with patients, healthcare personnel. This includes effectively conveying information, actively listening, empathizing, and adapting communication styles to different situations.

I've learnt the importance of professional ethics and patient confidentiality since starting training at a reputed private hospital but, the academics of BSc MLT program introduced me of emphasize ethical principles, professional conduct, patient rights, and legal regulations.

Seeing that the healthcare sector is dynamic and constantly evolving BSc MLT programme instilled a mind-set of lifelong learning, encouraging individuals to stay updated with the latest advancements, research, and best practices. After completing the course, I will proudly render my service in the healthcare sector using the skills that I learnt while pursuing this programme."



**Nejimi T. S**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* 2023-2026 batch and 1st semester

*Academic Facilitator and Location:* Lourde Institute Of Paramedical Sciences (Kanate Foundation).

#### My Experience About the Programme

I came to know about the programme from my search for a better paramedical course in social media. Studying para medicine has been an eye opening experience. The hands-on training and real-world scenarios prepared me for the unpredictable nature of emergency medical situations. The Paramedical programme not only provided me with a solid theoretical foundation but also allowed me to apply my knowledge in practical settings. I searched on google and got the best choice. I wanted to take up career in medical field and serve patients who are suffering from different diseases, that prompted me to opt this programme at TISS SSE

I chose BSc in Medical Laboratory Technology (MLT) is a programme that prepares students to work as medical laboratory technicians. MLT professionals play a crucial role in the healthcare system by performing various laboratory tests to help diagnose, treat, and prevent diseases. It is a dynamic field that keeps me on my toes. The generic subjects have ensured us the knowledge to be applied beyond the courses we pursue but those that are applicable in our future daily lifespan. The practical training at the hospital offers me better knowledge of the course and help me improve the communication skills with patients as well. The generic Subject helps develop our communication skill and knowledge on how to behave at the workplace and people around us. I chose this course because I wanted a job with a degree level eligibility as well as more chances for a better profession too. The lecturers who teach me are excellent at their lectures and are doing their best to make us more knowledgeable towards our subjects and I am sure that this will give me the right direction to achieve my goal. I am so much happy to be a part of this family and a part of TISS-SSE.

Clinical Posting at Lourdes Hospital Taliparamba helped me to gain practical experience by working with patients in a clinical setting. During clinical postings, I had typically spent time in hospitals or clinics, observing and assisting healthcare.





**Sanusha S Nambiar**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* and 2023-2026 batch and 1st semester

*Academic Facilitator and Location:* Lourdes Institute of Paramedical Sciences (Kanate Foundation).  
Knowledge Partner for Skill Training and location: Lourde Hospital, Taliparamba

#### My Experience About the Programme

I came to know about TISS SSE and the programme from my search for a better paramedical course in social media. I wanted to take up a career in medical field and be of assistance to patients who are suffering from different diseases, which prompted me to choose this programme at TISS SSE I chose BSc in Medical Laboratory Technology which I think is most necessary in our day-to-day lives because nowadays our community is suffering from so many viral infections and it is essential for accurate diagnosis, treatment, and prevention of diseases, and also for advancing medical knowledge and improving public health. The practical training at the hospital will give me better knowledge of the course through exposure to diverse cases, understanding the workflow and processes, etc. and will help me improve the communication skills with the patients. Clinical Posting helped me to gain practical experience by working with patients in clinical setting. During Clinical postings, typically I spend time in hospitals or clinics, observing and assisting healthcare support.

The Medical Laboratories are essential components of the healthcare system, providing critical diagnostic information that supports patient care and contributes to overall public health and it is a facility where various medical tests and analyses are conducted on patient samples to aid in the diagnosis, treatment, and monitoring of diseases and health conditions The generic Subject helps develop our communication skill and knowledge and also to behave well at the workplace and people around us. I chose this course because I want a job and immediate financial benefits. The institute brought a unique blend of cutting-edge curriculum and industry exposure to ensure that I was ready for a fulfilling career. The curriculum ensured that my skills matched the industry requirements which helped me.



**Fathimathu Rifa**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* 2023-2026 and 1st Semester

*Academic Facilitator and Location:* Lourde Institute Of Paramedical Sciences (Kanate Foundation).

*Knowledge Partner for Skill Training and location:* Clinical Posting, Lourde Hospital Taliparamba..

TISS SSE has provided me a very enhanced and efficient platform for the exposure to the on-the-job training at Lourde Hospital, Taliparamba. I am very grateful to the university for providing us the best opportunity to enhance our career and to be a skilled professional. Clinical posting helped me to gain practical experience by working with patients in a clinical setting. The world is here, where are you" is not just a slogan but I lived it in reality. I had the opportunity to meet the dynamic and distinguished faculties, who are enthusiastic, friendly and highly qualified. With their guidance and constant mentoring, I have been able to become a true professional in all the facets of life. Thanks for the guidance.



**Fathimath Thasneema M**

*Programme:* BSc Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* and 2023-26 batch and 1st semester

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences (Kanate Foundation)

*Knowledge Partner for Skill Training and location:* Lourde Hospital, Taliparamba.

As I did a research on colleges offering courses for medical laboratory technology, I came to know about TISS SSE and became interested in BSc in Medical Laboratory Technology programme. I was relieved to find the perfect university to pursue my lifetime dream course and motivated me to join the family.

I have always wanted to take up my career in medical field and have sympathy towards patients who are suffering from different diseases, which prompted me to choose this programme at TISS SSE. I chose BSc in MLT to grab the opportunity to contribute to patient care and make a difference in people's lives. Since I started approaching BSc MLT, I yield skills in operating and maintaining laboratory equipment, understanding laboratory procedures and skills.

I learned how to communicate with patients, healthcare personnel, includes effectively conveying information, actively listening, empathizing, and adapting communication styles to different situations.

I am very sure that upon completion of the course I will be a well behaved lab technician and I will be perfect in my jobs. All thanks to the university for providing such a strong academic reputation, quality faculty and resources, a diverse and inclusive community, a wide range of academic and extracurricular opportunities, support services for students, a commitment to research and innovation, and a positive impact on the local and global community."



**Athirashaji**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* 2023-2026 batch and 1st semester

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences (Kanate Foundation).

I came to know about TISS SSE and the programme from my social media search. I always wanted to study a course on hospital management field and had searched for various courses. I wanted to take up career in medical field and have sympathy towards patients who are suffering from different diseases, which prompted me to choose this programme at TISS SSE. I chose BSc in Medical Laboratory Technology which I think is most necessary in our day-to-day scenario, as our community is increasingly having kidney patients. The practical training at the hospital will give me better exposure thereby will help me improve the communication skills with patients as well. I chose this course because I wanted a job and more chances for a better profession too. The lecturers who are teaching me are excellent at their lectures and are doing their best to make us more knowledgeable towards our subjects and I am sure that this will give me the right direction to achieve my goal.



**Jyothika MP**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* 2023-2026 batch and 1st semester

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences (Kanate Foundation).

I have always been fond of medical field since my childhood. After my 10+2 I searched for many opportunities in medical field. The desire to become a better human being, a better developer and the dream that I have to achieve something big drove me to seek admission in medical field, I am delighted to say that the faculties and the staff have helped me to achieve these dreams. Here, I not only get the chance to develop my technical skills but also other aspects such as leadership and management skills. The faculties always inspired me to go forward and beyond my capabilities. I am grateful to TISS SSE for helping me achieve what I dreamt of.

I have acquired skills from on-the-job training and I am able to implement those in real life. I am highly motivated and curious to work in the work integrated mode. Once again, I thank TISS for offering me a great opportunity.



**Haleema Abdul MuneerK**

*Programme:* B.Sc in Dialysis Technology

*Batch and Semester:* 2021-2024 and 5th Semester

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences (Kanate foundation), Taliparamba

I got to know about TISS SSE and the programme from my Friend. I was motivated to apply for this programme because it equips students with job ready skills and knowledge, making them highly employable in industry specific roles. Then I have learnt about renal anatomy and physiology, hemodialysis procedure including preparation of solution, vascular access care, patient safety and infection control, clinical laboratory procedure related to dialysis treatment within the health care settings. In Semesters I, II and III learning experience was too good! Attending online classes for generic subjects was awesome. It was well planned and laid out. Contact mode is also very interesting and interactive. On-the-job skill training is excellent, done directly according to the hospital system and atmosphere. Teachers, Academic Facilitators, and KPSTs are very supportive and friendly. We are free to ask anything related to our programme. This offers a more practical approach to education and better job prospects for the students. Less the theory hour and increase the job training. This programme is entirely different from other programmes elsewhere because it adopts a work integrated approach with balanced theory-practical learning in the area of the field/sector. I am feeling fortunate to receive such a holistic education through this programme.





**Vimalraj kv**

*Programme:* BSc in Dialysis Technology

*State:* Kerala

*Batch and Semester:* 2021-2024 batch and 5th semester

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences (Kanate Foundation)

I came to know about this course and TISS through my friend and then through social media. Then I approached the University for more details. This was the first time I heard of such a course. Then I understood that this programme is different from other academic courses. Here we receive the clinical practice along with what we are learning in the current semester. It made our study easier. The reason why I chose this BSc in Dialysis Technology course was my aspiration to take up a career in medical field and take care of the kidney patients.

The generic subjects learnt mainly taught us how to communicate with others and develop our overall knowledge in finance, ethics, environment and entrepreneurship.

As I continue my studies in TISS SSE and prepare myself for a career in this field of dialysis technology I am confident that I will make positive impact on the lives of patients with kidney disorders.



**Muhsina T P**

*Programme:* BSc in Medical Laboratory Technology

*State:* Kerala

*Batch and Semester:* 2023-2026 batch and 1st semester

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences (Kanate Foundation).

I have always sought a career in a reputed university. The dream came true and I could learn many aspects of healthcare and I dedicate a great part of my success to university. TISS being a global university not only provides you some of the finest education across the globe but also foster you to evolve as a true professional. It fills my heart with joy unspeakably to be associated with a university of such stature.

The academic session organised in each semester is interesting; apart from the vocational subjects, the generic subjects taught helps me to gain knowledge of different streams which is very helpful for my current and future growth. I thank TISS for the help and support.



**Joyel Thomas**

*Programme:* Patient Care Management

*Batch/ Year of Completion:* 2020 – 2023

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences, Taliparamba

*Knowledge Partner for Skill Training and location:* Lourde, Taliparamba

*Current designation:* Clinical Instructor

*Placed at:* Lourde Institute of Paramedical Sciences, Taliparamba

I came to know about this course through an agency. I heard that there are lot of opportunities and job vacancies announced in the field of Patient Care Management. I like the offline classes more than online classes, in offline classes we can clear more doubts regarding our subjects to the teachers face-to-face and it is more interesting than the online. During the corona pandemic, although we had to attend the classes through online, our teachers were more helpful at that time; they cleared our doubts and completed our subjects more effectively. I like to go for OJT because there we can understand the problems of patients and understand how to manage a critical situation.

The unique feature of our programme is that in Patient Care Management, we can help and care for the patients and we can help them in their critical situations. Besides that, we can also work in non-clinical administrative department as well.

I like PCM because it has wide variety of opportunity and I get to learn a lot through this course because in our subject most of the syllabus is about waste management, bed care, disease condition, etc. In Kerala we get more job opportunities in HR department and hospital administration. Our OJT posting is very helpful and makes us to work effectively, as we get 360 total hours of OJT training. There we get most of the much needed work exposure.

Overall I think now I am a better person than before and I am upskilled and also have better social behaviour after completing the course.



**Rasiya PK**

*Programme:* BSc in Medical Imaging Technology

*State:* Kerala

*Batch and Semester:* Passed out 2020 batch

*Academic Facilitator and location:* Lourde Institute of Paramedical Sciences

*Knowledge Partner for Skill Training and location:* Lourde Hospital, Taliparamba

I came across the advertisements and got interested in the programme BSc in Medical Imaging Technology and also had my seniors who helped choose the exact course and motivated me to explore and apply for the program.

I was highly motivated to apply for the MIT program to enhance my skills and knowledge in vocational areas. I got opportunity to aspire to gain industry-relevant expertise, improve employability prospects in career also the program's reputation and accreditation motivated me to apply, as I understood the value of these credentials in health care jobs, since TISS SSE is a renowned institution, and the MIT program provides a recognized certification upon completion. The program's accessibility and student-friendly approach often motivated me to seek education and professional development alongside my existing responsibilities.

Since I started pursuing MIT, I acquired skills in operating and maintaining imaging equipment, understanding radiographic procedures, interpreting medical images and technical skills.

I learnt how to communicate with patients, healthcare personnel, this includes effectively conveying information, actively listening, empathizing, and adapting communication styles to different situations.

After all, the healthcare sector relies on teamwork, as a student of MIT program I engaged in group projects and simulations, building skills in collaboration, teamwork, and interpersonal communication. I've learnt the importance of professional ethics and patient confidentiality since started training at a reputed private hospital but, the academics of MIT program introduced me of emphasize on ethical principles, professional conduct, patient rights, and medico legal regulations.

Seeing that the healthcare sector is dynamic and constantly evolving MIT program instilled a mind-set of lifelong learning, encouraging individuals to stay updated with the latest advancements, research, and best practices.

In the upcoming five years, I want to test myself. I have set up targets which can bring out the best in me. These objectives deal with taking decisions that were tough but fruitful. In my internship period I tried to play it safe which most people do. The five years I see ahead of me are full of responsibilities which need better decisiveness. I am sure the years will be mutually progressive for me and the organization.

## Academic Perspectives: Faculty Voices



**Mr. Sumit Kati**

Content Strategist, Faculty - Tiksna Livelihood Pvt. Ltd.

### Nurturing Tomorrow's Healthcare Leaders: Skill Education and Career Opportunities for Students

#### Introduction:

In today's rapidly evolving healthcare landscape, the demand for skilled professionals is higher than ever. Healthcare skill education not only equips students with the knowledge and expertise needed for diverse roles in the field but also opens doors to rewarding career opportunities. As advancements in medical technology and patient care continue, the importance of a well-trained healthcare workforce becomes increasingly apparent. This article explores the significance of healthcare skill education and the plethora of career opportunities it presents for students.

#### Importance of Healthcare Skill Education:

Healthcare skill education goes beyond traditional academic learning by providing students with practical, hands-on experience and specialized training. These programmes emphasize the development of critical skills such as communication, problem-solving, and adaptability, essential for success in the dynamic healthcare sector.

- 1. Clinical Skills:** Healthcare skill education focuses on developing clinical skills that are crucial for roles such as nursing, medical assisting, and diagnostic imaging. Students learn to apply theoretical knowledge in real-world scenarios, gaining confidence in providing quality patient care.
- 2. Technological Proficiency:** With the increasing integration of technology in healthcare, students are exposed to cutting-edge tools and systems. This ensures they are adept at using electronic health records, medical imaging software, and other technologies that streamline healthcare processes.
- 3. Interpersonal Communication:** Effective communication is a cornerstone of healthcare. Skill education emphasizes interpersonal skills, teaching students how to communicate with patients, families, and colleagues compassionately and professionally.

#### Career Opportunities in Healthcare:

The healthcare industry offers a diverse array of career opportunities for individuals with various skill sets and interests. Some prominent career paths include the following:

- 1. Nursing:** With a shortage of nurses globally, this profession offers ample opportunities. Specializations such as pediatric nursing, critical care nursing, and geriatric nursing allow individuals to tailor their careers to specific patient populations.
- 2. Medical Technology:** Careers in medical technology, including medical laboratory technology and radiologic technology, are in high demand. These professionals play a crucial role in diagnosing and treating diseases through laboratory tests and imaging procedures.
- 3. Health Informatics:** As healthcare organizations transition to digital systems, there is a growing need for professionals in health informatics. They manage and analyze health information, ensuring its accuracy and confidentiality.

4. **Physician Assistant:** Physician assistants work under the supervision of physicians, providing medical care in various specialties. This role bridges the gap between nurses and doctors, making it a vital component of the healthcare team.
5. **Physical Therapy:** Physical therapists help patients recover from injuries and surgeries, improving their mobility and overall quality of life. This field is particularly rewarding for those who enjoy working closely with individuals to achieve tangible results.

**Conclusion:**

Healthcare skill education is a gateway to a world of opportunities for students aspiring to make a difference in people’s lives. Whether pursuing a career in direct patient care, medical technology, or healthcare management, acquiring specialized skills ensures that individuals are well-prepared to navigate the complexities of the healthcare industry. As the demand for healthcare professionals continues to rise, investing in skill education not only enhances career prospects but also contributes to the overall improvement of healthcare services and outcomes.



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**Healthcare Skill Education And Career Opportunities For Students**

The vision of skill and vocational education involves nurturing the holistic development of individuals. It goes beyond imparting technical skills and includes the development of critical thinking, problem-solving abilities, teamwork, communication skills, and entrepreneurship mindset. Skill education aims to produce well-rounded individuals who are adaptable, innovative, and capable of meeting the demands of a rapidly changing job market.

In recent years, the importance of healthcare skill education has grown, particularly in specialized areas like dialysis. For students interested in pursuing a career in dialysis, there are abundant opportunities for skill development and career advancement in the healthcare sector.

Healthcare has always been a dynamic and rewarding field, with a continuous demand for skilled professionals.

Skill education recognizes the importance of lifelong learning in today’s dynamic work environment. It promotes a culture of continuous skill development and upskilling throughout one’s career. Skill education aims to equip individuals with the ability to adapt to evolving job requirements, technological advancements, and changing market demands. Lifelong learning opportunities, such as short-term courses, certifications, and reskilling programs, are integral components of the skill education system.



**Specialized Areas in Dialysis Education and Training:** Dialysis is a life-saving medical procedure used to treat individuals with kidney failure or chronic kidney disease. To provide this critical care, a comprehensive understanding of the process is essential. Many universities, colleges, and vocational schools offer dedicated dialysis technician programmes.

Hands-on Training or Practical experience is vital in dialysis education. Students undergo clinical rotations in healthcare facilities to apply their knowledge, practice dialysis procedures, and gain valuable real-world experience.

Collaboration with Industries' vision is to ensure that skill training programs align with the needs and requirements of the job market. Close collaboration with industries facilitates the development of up-to-date curriculum, provision of internships, apprenticeships, and work-based learning opportunities.

The vision of skill education acknowledges the growing impact of technology on various industries. It recognizes the need to incorporate technological advancements into skill training programmes. This includes training students in emerging technologies, digital literacy, and utilizing online platforms for learning.

### **Career Opportunities for Dialysis Students**

A career in dialysis offers a wide range of opportunities for skilled professionals. Here are some of the potential career paths for dialysis students:

#### 1. Curatives / Therapeutic Services:

- Dialysis Technologist
- Peritoneal Dialysis Technologist
- Renal Technologist in Hospitals and stand-alone / Day Care dialysis Centre,
- Nephrology Technologist
- Vascular Access Coordinator
- Clinical Coordinator.

#### 2. Social /Administration:

- Patient Educator
- Patient Counselor
- Transplant Coordinator

#### 3. Academics:

- Dialysis Instructor,
- Trainer
- Lecturer domain specific

#### 4. Medical Industry

- Sales Representative
- Application / Product Specialist
- Regional Manager
- Head of Sales

Research and Development: Opportunities also exist in the research and development sector. Professionals can contribute to the improvement of dialysis equipment, procedures, and patient care.

The need for skilled dialysis therapists is growing as a result of the ageing population and the increasing frequency of chronic renal disorders, there is an increasing demand for dialysis services. This trend ensures that skilled dialysis technicians and healthcare professionals will remain in demand.

Moreover, careers in healthcare come with several benefits, the healthcare sector offers a high level of job security, as medical services are always in demand, knowing that you are making a significant difference in the lives of patients by helping them is deeply rewarding.

Healthcare skill education and career opportunities for students are abundant and vital in addressing the healthcare needs of individuals.

By providing essential healthcare support to individuals in need, therapists make a positive contribution to society.

The demand for healthcare professional is not limited to a specific region or country. The skills acquired by professionals are offering to explore career opportunities on a global scale. This opens doors for cross-border collaborations and international career growth prospects.



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## **Skill education in the healthcare sector: challenges and opportunities in kidney care**

### **Health care scenario in our country**

India has a population of 1.38 billion and a population density of 422 in 2023. With a decadal growth rate of 8.4 percent, the population is expected to reach 1.47 billion by 2031.<sup>1,2</sup> India is set to overtake China as the most populous nation by 2025. India's geriatric population has increased from 6.4 percent in 1981 to 10.1 percent in 2021 and is expected to reach 13.1 percent in 2031.<sup>3</sup>

India is undergoing an epidemiological transition with a rising burden of non-communicable diseases (NCDs), and the transition ratio has shifted from 1.63 in 1990 to 0.44 in 2019. The contribution of communicable, maternal, neonatal, and nutritional diseases (CMNNDs) to total deaths reduced from 55.3 percent in 1990 to 25 percent in 2019. For the same period, the contribution of NCDs to total deaths increased from 35.9 percent to 64.9 percent.<sup>4</sup>

### **Healthcare infrastructure and human resources in India**

India has a total of 196,359 health facilities; based on the recommendations of the Indian Public Health Standards, there is a significant shortfall, indicating the need for more healthcare infrastructure.<sup>5,6,7</sup> India has only 1.2 hospital beds per 1000 people, which is approximately 4 times less than the WHO recommendation of 5 beds per 1000 people. <sup>7</sup> India has approximately 4.6 million human resources in healthcare (HRM) (doctors, nurses, and midwives), with a density of 33.5 per 10,000 population, the lowest in BRICS nations. India has a total shortfall of approximately 1.5 million HRH. If we continue with the constant current supply of the healthcare workforce, India will match HRH demand by 2040, a decade later than the target of 2030.<sup>8</sup> Allied health care or paramedical sector is the fastest-growing sector and the backbone of the healthcare industry. The scope of paramedical education is vast today since the public and private sectors offer several job opportunities. Four nurses and paramedics should ideally support each doctor. Therefore, more paramedic professionals are needed in India to bridge the availability-to-requirement ratio. Moreover, the inclusion of allied healthcare and paramedical professionals is expanding. More and more job roles have been defined for health care. Now, allied healthcare and paramedical professions are not limited to medical laboratories, imaging, physiotherapy, optometry, etc., as was thought conventionally earlier. It is being expanded to other areas of patient care like kidney care (dialysis), respiratory therapy, palliative care, geriatric care, health counselling, etc.

### **Kidney care dialysis scenario in our country**

End-Stage Kidney Disease (ESKD), with its high prevalence, morbidity, and mortality, is becoming an important public health problem.<sup>9,10</sup> Every 1 out of 10 persons is at risk of developing ESKD worldwide. Even in the rural Indian population, it is estimated that 7.5% of the population is at risk of developing ESKD.<sup>11,12,13</sup> Dialysis and transplantation become effective in prolonging the lives of patients with ESKD. 90% of the patients prefer hemodialysis (HD), whereas only 10% opt for peritoneal dialysis (PD). It is estimated that 3.4 million patients are living on dialysis worldwide.

The burden of ESKD is rising dramatically in India, with the proportion of deaths due to kidney failure increasing year over year. The age-adjusted incidence of ESKD in India is 226 per million population. It is estimated that nearly 220,000 new ESKD patients are added to the pool every year in our country. Dialysis is the only life-sustaining treatment modality for these patients. Demand for dialysis is growing by 31% in India.<sup>14</sup> India has the 5th largest number of dialysis patients in the world. Considering these facts, India's dialysis market is expected to cross one billion USD.

Dialysis centers, until recently the preserve of large cities, are opening regularly even in smaller cities, thus bringing the treatment closer to patients' homes. Mathematical modelling using data from comparable countries shows that if access to treatment were not restricted, this number would be approximately 1,100,000, highlighting a large unmet need and therefore an opportunity.<sup>15</sup>

### **Changing technology and skill set requirements for dialysis technologists**

Dialysis technology is rapidly changing field; newer methodologies and treatment modalities are being introduced for the treatment of ESRD patients. Application of new techniques and methods significantly improves patient outcomes. New extracorporeal therapies like molecular adsorption used for treatment of septicaemia and liver disease and light chain removal used for treatment of multiple myeloma are helping to save patient lives and improve outcomes.<sup>16,17</sup> Hemodiafiltration (HDF), which mimics kidney function in a better way than conventional haemodialysis is gaining acceptance worldwide.<sup>18,19</sup> CRRT is another therapy used in critically ill patients and is also widely used in our country.<sup>20</sup> Therefore, today's dialysis technology student should be exposed to all these modern techniques.

Apart from the clinical skill sets that are conventionally taught to dialysis technology students, skills like counselling, customer service, computer skills, supervisory skills, and most importantly, maintaining human relationships are the recommended and necessary skill sets for dialysis technologists in today's era. There is an urgent need for competent people who can handle highly sophisticated medical machinery with competence.

### **Regulation of allied healthcare professionals**

There is a significant lack of standardization across allied health care education in general and in teaching advances in skills and technologies that emerged in the past decade, in particular. With a vast variety of allied health professions (AHPs) already present and with newer categories coming on board each day, we need a standard framework for the registration of allied health care and paramedical professionals. In our country, there is a conspicuous lack of recognition in the form of accreditation, quality control, a career plan, and respectable pay scales for allied health care professionals (AHPs).<sup>21</sup> A number of councils, such as the Medical Council of India (MCI), the Dental Council of India (DCI), the Pharmacy Council of India (PCI), and the Indian Nursing Council (INC), have already been established by the Government of India for regulating the standards of education and training as well as the registration of practitioners in these fields. Significant work has been done to bring AHPs under a similar regulatory body.

In March 2011, the Ministry of Health and Family Welfare nominated the Public Health Foundation of India (PHFI) as its technical partner and constituted the National Initiative for Allied Health Sciences (NIAHS) secretariat with a mandate to develop a framework to improve allied health training, education, and regulation in the country.<sup>22</sup> Several states have established state paramedical councils that regulate paramedical education in their respective states. However, there is no central regulatory mechanism for AHPs. The objective of such a regulatory body should be to standardize allied health care and paramedical education, prevent unqualified people from practicing, and maintain the standards of these professions. Workers like electricians and plumbers are required to be licensed in our country, whereas professionals who are dealing with lifesaving treatments are not regulated; hence, there is an urgent need for government authorities to act on this issue and standardize allied healthcare professionals, education and practices.



**Mr. Remzy EK**

Principal

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### **Emerging innovative and good healthcare practices**

In the ever-evolving landscape of healthcare, numerous emerging and innovative practices are shaping the industry, enhancing patient care, and improving overall health outcomes. Here are some noteworthy trends and practices in healthcare:

#### **1. Telehealth and Remote Monitoring:**

- The widespread adoption of telehealth services allows patients to access medical consultations remotely, improving healthcare accessibility and reducing the need for in-person visits.
- Remote patient monitoring using wearable devices and smart technology enables healthcare providers to track patients' vital signs and health metrics in real-time, enhancing preventive care.

#### **2. Precision Medicine:**

- Precision medicine tailors medical treatment and interventions to individual characteristics, including genetic makeup, lifestyle, and environmental factors.
- Advancements in genomics and personalized diagnostics enable healthcare professionals to prescribe treatments that are more targeted and effective for specific patients.



### **3. Artificial Intelligence (AI) and Machine Learning:**

- AI and machine learning applications are revolutionizing diagnostics, drug discovery, and treatment planning.
- Predictive analytics help identify potential health issues, while machine learning algorithms enhance the accuracy of medical imaging interpretations.

### **4. Virtual Reality (VR) in Healthcare:**

- VR is being used for therapeutic purposes, such as pain management, mental health treatments, and surgical simulations.
- Medical training programs increasingly incorporate VR technology to provide realistic and immersive learning experiences for healthcare professionals.

### **5. Blockchain for Health Data Security:**

- Blockchain technology enhances the security and privacy of health data by providing a decentralized and tamper-resistant platform for storing and sharing sensitive information.
- Patients have greater control over their health records, and healthcare providers can securely access accurate and up-to-date information.

### **6. Patient-Centric Care Models:**

- A shift toward patient-centric care models emphasizes involving patients in their healthcare decisions and treatment plans.
- Shared decision-making and patient engagement contribute to improved health outcomes and increased patient satisfaction.

### **7. Social Determinants of Health (SDOH) Integration:**

- Healthcare providers are recognizing the impact of social and economic factors on health outcomes.
- Integrating social determinants of health into care plans helps address non-medical factors that influence a patient's well-being.

### **8. Robotics in Surgery and Rehabilitation:**

- Surgical robots assist surgeons in performing minimally invasive procedures with enhanced precision.
- Rehabilitation robots aid in the recovery of patients by providing targeted exercises and therapies.

### **9. Health and Wellness Apps:**

- Mobile applications that focus on health and wellness provide users with tools for fitness tracking, mental health support, and personalized health recommendations.
- These apps contribute to preventive care and empower individuals to take an active role in managing their health.

### **10. Community-Based Healthcare Initiatives:**

- Collaborative efforts involving community health workers, local organizations, and healthcare providers address specific health needs within communities.
- These initiatives aim to improve access to healthcare, reduce health disparities, and promote overall community well-being.

These emerging healthcare practices reflect a commitment to innovation, patient-centered care, and the integration of advanced technologies to enhance the quality and accessibility of healthcare services. As the healthcare landscape continues to evolve, staying abreast of these trends is crucial for healthcare professionals, organizations, and policymakers alike.



**Ms. Ankita Parab**

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## **HEALTHCARE SKILL EDUCATION AND CAREER OPPORTUNITIES FOR STUDENTS OF MEDICAL IMAGING TECHNOLOGY**

Skill education in healthcare sector has paved its way towards modernization, innovative techniques and expertise in quality patient care. We all know healthcare is such a field where perfection and accuracy are most important as we deal with the lives of individuals. Training students in healthcare sector is a great task as we need to impart clinical, technical as well as ethical touch for patient care.

The Healthcare Skill Education helps in imparting knowledge in a blended form of theory and hands-on training which helps the students to manage different types of patients when they join their jobs.

Medical Imaging Technology (Radiology) has been transformed and reached a higher level where many modern techniques have been added to the ancient techniques of imaging. X-ray, CT, MRI, Sonography, Mammography, BMD, MRI, and Fluoroscopy covers the entire canvas of Radiology.

The need for such professionals has been expressed by not only the healthcare industry employers, but also the consumers of this industry, i.e., patients. The specialized skill training offered to the students makes them an asset not only to the doctors, radiologists, healthcare centres and nurses but the patients as well. The learners of these courses would thus be better alternatives to existing under trained medical imaging technicians, thus reducing the burden on radiologists and technicians. This would also enable them to deliver quality care. The healthcare skill education thus, aims to fill the gap between the demand for these professionals and dearth of their availability.

Radiology being the multifunctionality field, the job opportunities available also covers a wide range. Students can work with various job roles. This includes the following:

- Radiology technician:
  - a. X-ray technician
  - b. Mammography technician
  - c. CT technician
  - d. MRI technician
- Quality Assurance role:
  - a. Radiation safety officer
  - b. Licensing officer
  - c. Quality control analyst

- Medical tourism and telemedicine:
  - a. Quality officer
  - b. Telemedicine executive
  - c. Patient relation officer
- Administrative role:
  - a. Radiology Admin officer
  - b. Centre in-charge
- Application role:
  - a. Application specialist in Siemens, GE, etc.
  - b. Quality manager
- Academics
  - a. Trainer – practical aspect
  - b. Radiology Instructor
  - c. Faculty
  - d. Content developer for courses



**Mr. Jason Samuel**

Faculty – Dialysis Technology

## **HEALTHCARE SKILL EDUCATION AND CAREER OPPORTUNITIES FOR STUDENTS**

Healthcare continues to be a crucial sector in today's world of rapid transformation. There has never been a more pressing need for qualified healthcare workers, and this trend is predicted to continue for an extended period to come. Because of this, students can now access a wide range of job prospects through healthcare skill education.

### **The Healthcare Skill Education**

The provision of high-quality healthcare requires a wide range of professions and skills, which are covered by this diverse field. Along with imparting technical knowledge, the program places a strong emphasis on developing soft skills like critical thinking, empathy, and effective communication. The following are the main elements of healthcare skill education:

- **Core Medical Knowledge**

This gives students a strong foundation in the biological and medical sciences by covering topics including anatomy, physiology, pharmacology, and medical terminology.

- **Clinical Training**

Practical experience, which can be attained through clinical rotations, internships, or hands-on training in actual healthcare settings, is a prerequisite for many healthcare professions.

- **Soft Skills**

Students are frequently taught these skills to improve their patient care abilities. Effective communication, patient empathy, teamwork, and ethical decision-making are crucial in the healthcare industry.

### **Career Opportunities**

Education in healthcare skills leads to a wide range of professional options that suit a variety of interests and skill levels. The following are well-known healthcare vocations that students can choose from:

#### **Registered Nurses (RNs):**

RNs offer a wide variety of medical services and are essential to patient care. They can choose to specialize in emergency nursing, critical care, pediatrics, or any other field.

#### **Physician Assistants (PAs):**

When diagnosing and treating patients, PAs collaborate closely with doctors. They are in great demand and have received training in a variety of medical treatments.

**Physician Assistants (PAs):**

When diagnosing and treating patients, PAs collaborate closely with doctors. They are in great demand and have received training in a variety of medical treatments.

**Radiologic technologists:**

Radiologic technologists are experts who run imaging machines such as MRIs, CTs and X-rays, helping doctors diagnose patients.

**Dialysis technologist:**

Dialysis technologists are medical specialists trained in the operation of dialysis machine which is used in the treatment for kidney failure patients.

**Respiratory therapist:**

Respiratory therapists offer therapy and treatments to enhance respiratory function to patients who have trouble breathing.

**Occupational Therapists (OTs):**

OTs develop individualized treatment regimens to help patients regain independence in their everyday activities.

**Pharmacist:**

As experts in medications, pharmacists guarantee the safe and efficient use of drugs by counseling patients and medical professionals about the negative effects of prescription drugs.

**Career Prospects**

Despite economic downturns, the healthcare sector has proven to be resilient and stable. This industry has grown steadily due to a number of factors, including an aging population, advancements in medical technology, and the continuous need for high-quality healthcare services. Consequently, healthcare workers continue to have a good career outlook. Many healthcare workers can advance their careers by pursuing advanced degrees or certifications, which can lead to higher salaries and more significant responsibilities. Additionally, there is a steady need for healthcare workers, which indicates that job security in this industry is generally good.

Considering all this, healthcare skill education offers students a broad array of career opportunities in a dynamic and essential industry. Whether one's passion lies in direct patient care, behind-the-scenes laboratory work, or healthcare management, there is a healthcare profession to match those interests.





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Dr. Anjum S Khan Joad (Director Anaesthesia and HOD Palliative Care – Bhagwan Mahaveer Cancer Hospital and Research Centre, Jaipur – Rajasthan).

**In a country as vast and diverse as India, the palliative care landscape presents unique challenges and opportunities.**

This article, co-authored by Dr. Sushma Bhatnagar (Prof and HOD Onco-Anesthesiology and Critical Care – All India Institute of Medical Sciences, New Delhi, President – India Association of Palliative Care), Debabrata Mukherjee (CEO – Noon Hospital and Research Centre, Jhalawar- Rajasthan), Dr Savita Butola (CMO, Sector Hospital, Border Security Force, Tripura), Dr. Anjum S Khan Joad (Director Anaesthesia and HOD Palliative Care – Bhagwan Mahaveer Cancer Hospital and Research Centre, Jaipur – Rajasthan) delves into the current scenario of palliative care in India, the hurdles faced, and the potential solutions.

Palliative care is like a comforting companion during one’s toughest health battles.

It is not just about treating a disease, but caring for the whole person - easing pain, soothing emotional stress, and offering support to families. Imagine a loved one facing a serious illness; palliative care stands as a beacon of relief and empathy, ensuring their journey is as comfortable as possible.

It is not solely for life's final moments but a support system from diagnosis, enhancing quality of life at every stage. In essence, it is about adding life to days, not just days to life.

Despite India's advancements in healthcare, palliative care remains an underserved domain. As only less than 1% of the population has access to these essential services, demands for comprehensive, empathetic care is urgent. This situation calls for an urgent multi-faceted approach that involves every stakeholder in the health sector; healthcare leaders, policymakers, and educational institutions, especially our doctors.

The existing palliative care framework in most of the countries are struggling with limitations – restrictive opioid policies, limited national policy frameworks, and a lack of institutional interest have resulted in a scenario where accessibility is limited to a mere 1-2% of those in need. Furthermore, current guidelines focus predominantly on cancer, overlooking the necessity for home-based and paediatric palliative care.

The challenge is not just to extend care, but to ensure it is of the highest quality and accessible to all, including those in rural and underserved areas. These challenges present an opportunity for healthcare systems to fully recognize and embrace the critical role of palliative care in enhancing patient outcomes. As we move forward, our vision is to create a palliative care ecosystem that is inclusive, high-quality, and accessible.

The cornerstone of this strategy is to induce a paradigm shift in how healthcare professionals perceive and practice palliative care. This requires rigorous training programs, continuous medical education, and exposure to global best practices, emphasizing the holistic well-being of patients.

A recent collaboration between Noon Hospital and the Tata Institute of Social Sciences (TISS) and Indian Association of Palliative Care (IAPC) conducted a long term and short term Palliative Care education programme at Bhawanimandi located at a remote part of Rajasthan at very early stage of society's adoption level. This kind of engagement at an underserved location is a great initiative and should aim to address the above issues and infuse the healthcare sector with professionals who are not only knowledgeable but also skilled in the context of the country's practice.

Implementing community screening programmes can help identify patients in need of palliative care early in their diagnosis. The path to revolutionizing palliative care in countries as vast and diverse as India is paved with challenges. In this digital era the potential of adopting a comprehensive, tech-enabled, and collaborative approach, can help improve skills, care and accessibility.

In India, The National Program for Palliative Care (NPPC) was created by the Indian government in 2012. Major barriers include limited access to opioids due to the Narcotic Drugs and Psychotropic Substances Act, which was amended in 2014 to improve access. Policy initiatives by state and central governments and the inclusion of palliative care in the National Health Policy of 2017 offer hope.

Community-owned palliative care services have shown steady progress. Success in palliative care involves a range of services delivered by a range of professionals that all have equally important roles to play – including physicians, nurses, support workers, paramedics, pharmacists, physiotherapists, and volunteers – in support of the patient and their family.

We need our dedicated healthcare professionals, compassionate doctors, nurturing nurses, active volunteers, insightful policymakers, and every stakeholder unite in this journey. As we traverse, the certainty of needing each other's strength, care, and understanding is an eventual reality for us all. Let us come together in this transformative endeavour, not just as professionals or volunteers, but as fellow travellers cherishing life while acknowledging the inevitability of its end.



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## **HEALTHCARE SKILL EDUCATION AND CAREER OPPORTUNITIES FOR STUDENTS OF MEDICAL LABORATORY TECHNOLOGY**

The rapid advancements in medical sciences, growth of medical tourism and the increasing demand for quality healthcare choices and services are making it imperative for India to strengthen its base of skilled healthcare professionals - doctors, specialists, nurses, pharmacists and allied and other healthcare professionals. Paramedics, who have always been included in the last and rather humble category, are however fast gaining importance due to the vital role they play in the chain of healthcare services.

Unfortunately, while most healthcare Academic Facilitators understand the role a skilled paramedic can play in delivering quality healthcare and see the gap between the demand for and supply of such professionals, currently, their hands seem to be tied.

A MLT (Medical Laboratory Technology) technologist is an all-rounder as far as the technologies in a medical laboratory is concerned. The skill education envisages building in an overall expertise in the student, of performing medical laboratory tests, whether it is routine or special tests. These students would be capable of performing a range of tests such as those related to phlebotomy, clinical biochemistry, haematology, serology, cytogenetics, etc. Besides, skills related to lab management and ethics, biomedical waste disposal, personality development, effective communication skills, etc., would also be developed in them.

Career Opportunities:

- Senior Laboratory Technologist
- Junior Laboratory Technologist
- Phlebotomist
- Laboratory Quality officer
- Academics: Faculty and Instructor
- Infection control officer
- Blood bank technician
- Home collection technician
- Open own set up (Collection and processing centre)



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**Fostering Excellence: Healthcare Skill Education and Career Opportunities in Patient Care Management for Students**

**Introduction:**

Patient care management is a critical component of the healthcare industry, focusing on coordinating and optimizing healthcare services to ensure the best possible outcomes for patients. As the demand for well-trained professionals in patient care management grows, healthcare skill education emerges as a vital pathway for students to acquire the necessary expertise. This article delves into the significance of healthcare skill education in patient care management and explores the diverse career opportunities awaiting students in this field.

**Importance of Healthcare Skill Education in Patient Care Management:**

1. **Holistic patient-centric approach:** Healthcare skill education in patient care management emphasizes a holistic understanding of patient needs. Students learn to assess and address not only medical requirements but also the emotional and social aspects of patient care.
2. **Effective communication skills:** patient care managers are at the forefront of communication between healthcare providers, patients, and their families. Skill education focuses on honing effective communication skills, ensuring clear and compassionate interactions that contribute to patient satisfaction and positive health outcomes.

3. **Care coordination and collaboration:** Patient care managers play a crucial role in coordinating care across various healthcare professionals and departments. Skill education programs equip students with the ability to collaborate with multidisciplinary teams, ensuring seamless and efficient patient care.
4. **Crisis management and problem-solving:** Healthcare environments can be dynamic and unpredictable. Skill education prepares students to handle crises, make quick decisions, and solve problems efficiently, contributing to the smooth operation of healthcare facilities.

#### **Career Opportunities in Patient Care Management:**

1. **Patient care coordinator:** Patient care coordinators oversee and manage patient care plans, ensuring that healthcare services are delivered in a coordinated and timely manner. They act as a liaison between healthcare providers, patients, and their families.
2. **Healthcare administrator:** Healthcare administrators with a focus on patient care management are responsible for overseeing the day-to-day operations of healthcare facilities. They ensure that policies and procedures are in place to provide high-quality patient care.
3. **Care manager:** Care managers work closely with patients and their families to develop and implement care plans. They assess patient needs, coordinate services, and monitor the effectiveness of care, promoting optimal health outcomes.
4. **Case manager:** Case managers focus on coordinating healthcare services for specific patient populations, such as those with chronic illnesses or complex medical conditions. They work to improve patient outcomes and manage healthcare costs efficiently.
5. **Quality improvement specialist:** Professionals in this role analyze and enhance the quality of patient care services. They implement initiatives to improve patient safety, satisfaction, and overall healthcare delivery.

#### **Conclusion:**

Healthcare skill education tailored to patient care management opens doors to a multitude of rewarding and impactful career opportunities. As the healthcare industry continues to evolve, the need for skilled professionals in patient care management remains paramount. Students who embark on this educational journey not only develop the necessary skills to excel in their roles but also contribute significantly to enhancing the overall quality of patient care and healthcare delivery. The field of patient care management is not only about managing medical needs but also about fostering a compassionate and patient-centered approach that makes a lasting difference in the lives of those under care.



## Future Scope of Optometry in India



### **Dr. Debapriya Mukhopadhyay**

B.Optom; M.Optom; MCOptom; OD; MBA; PhD

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Optometry is a dynamic and rewarding profession that offers a variety of career opportunities for those passionate about eye care and vision health. Optometry is the science of measuring, diagnosing, treating and preventing vision problems and eye diseases. Optometrists are the primary eye care providers who examine, prescribe, fit and dispense glasses, contact lenses and other optical devices. Optometrists also provide vision therapy, lowvision rehabilitation, ocular disease management and public health education. Optometry is a rewarding and fulfilling career that offers opportunities to make a positive impact on people's lives and society.

The future scope of optometry in India is bright and promising, as there is a huge demand for qualified and skilled optometrists in the country. According to a report by the World Health Organization (WHO), India has one of the highest rates of blindness and visual impairment in the world, with about 12 million blind people and 55 million people with low vision. The majority of these cases are preventable or treatable with timely and appropriate eye care services. However, India faces a severe shortage of eye care professionals, especially in rural and remote areas. The current ratio of optometrists to population in India is estimated to be 1:25,000, which is far below the WHO recommended ratio of 1:10,000. Moreover, about 550 million people in India need vision correction, but only 170 million have access to it. The prevalence of refractive errors, cataracts, glaucoma, diabetic retinopathy, and other eye conditions is also rising in India.

To bridge this gap and meet the growing eye care needs of the population, India needs more optometrists who can provide quality and affordable eye care services to all segments of society. Optometry is a lucrative and satisfying career option for those who want to make a difference in people's lives by improving their vision and eye health. Optometry also offers a wide range of specializations and sub-specializations, such as paediatric optometry, geriatric optometry, sports vision, contact lens practice, low vision, binocular vision, ocular pharmacology, ocular pathology, etc. Optometrists can work in various settings, such as hospitals, clinics, optical shops, schools, colleges, research institutes, NGOs, government agencies, etc. Optometrists can also pursue higher education and research in optometry or related fields.

The scope of optometry in India is expected to grow further in the coming years, as the awareness and demand for eye care services increase among the public. The government of India has also recognized the importance of optometry and has taken several initiatives to promote and regulate the profession.

For example, the National Programme for Control of Blindness and Visual Impairment (NPCBVI) aims to reduce the prevalence of blindness and visual impairment in India by providing comprehensive eye care services at all levels of the healthcare delivery system. The NPCBVI also supports the development of human resources for eye care, including optometrists. The Optometry Council of India (OCI) is the statutory body that regulates the education and practice of optometry in India. The OCI sets the standards for optometry education, registration, examination and code of ethics for optometrists in India.

To become an optometrist in India, one has to complete a four-year Bachelor of Optometry (B.Optom) degree from a recognized institution affiliated with a university. The B.Optom course covers both theoretical and practical aspects of optometry, along with clinical training and internship. After completing the B.Optom degree, one has to register with the Allied & Health Science Council to practice as an optometrist in India. One can also pursue a two-year Master of Optometry (M.Optom) degree or a three-year Doctor of Philosophy (PhD) degree in optometry or related fields from a recognized institution.

Optometry is a rewarding career choice for those who have an interest in science, mathematics, biology and health care. Optometry is also a socially responsible profession that contributes to the well-being of individuals and communities by providing essential eye care services. Optometry is a profession that challenges one's intellect, creativity and skills while offering personal satisfaction and professional growth

### **Career opportunities for girls in HealthCare after graduation in Medical Imaging Technology**



**Ms. Rakhi Joseph**

Director: Lourde Education Academy  
Certified Training Practitioner – CIPD London

After graduating in Medical Imaging Technology, there are various career opportunities for girls in the healthcare sector. Here are some potential career paths:

#### **1. Radiologic Technologist:**

- Role: Perform X-rays, CT scans, MRIs, and other imaging procedures.
- Settings: Hospitals, clinics, diagnostic imaging centers.

**2. Ultrasound Technologist (Sonographer):**

- Role: Use ultrasound equipment to create images of organs and tissues.
- Settings: Hospitals, obstetric clinics, imaging centers.

**3. MRI Technologist:**

- Role: Operate magnetic resonance imaging (MRI) scanners for detailed imaging.
- Settings: Hospitals, specialized imaging centers.

**4. CT Technologist:**

- Role: Conduct computed tomography (CT) scans for detailed cross-sectional images.
- Settings: Hospitals, diagnostic imaging facilities.

**5. Nuclear Medicine Technologist:**

- Role: Use radioactive materials to create images for diagnosing and treating diseases.
- Settings: Hospitals, research institutions.

**6. Mammography Technologist:**

- Role: Specialize in breast imaging using mammography techniques.
- Settings: Breast health centers, hospitals.

**7. Cardiac Catheterization Technologist:**

- Role: Assist in cardiovascular procedures by operating imaging equipment.
- Settings: Cardiac cath labs, hospitals.

**8. Radiation Therapist:**

- Role: Administer radiation treatments to cancer patients.
- Settings: Cancer treatment centers, hospitals.

**9. PACS Administrator (Picture Archiving and Communication System):**

- Role: Manage and maintain digital imaging systems and patient data.
- Settings: Healthcare IT departments, hospitals.

**10. Educator/Trainer:**

- Role: Teach and train students in medical imaging technology programs.
- Settings: Educational institutions, training centers.

**11. Researcher in Medical Imaging:**

- Role: Contribute to advancements in imaging technology through research.
- Settings: Research institutions, healthcare technology companies.

**12. Healthcare IT Specialist in Imaging Informatics:**

- Role: Manage and optimize the use of imaging data within healthcare information systems.
- Settings: Hospitals, healthcare IT departments.

**13. Quality Control Specialist:**

- Role: Ensure the accuracy and quality of medical imaging procedures.
- Settings: Hospitals, imaging facilities.

**14. Sales and Application Specialist:**

- Role: Work with companies selling medical imaging equipment, providing support and training.
- Settings: Healthcare equipment companies.

**15. Tele imaging Specialist:**

- Role: Analyze and interpret medical images remotely for telemedicine applications.
- Settings: Telehealth companies, remote diagnostic services.

When pursuing these career paths, it's essential to stay updated on the latest technologies and advancements in medical imaging. Additionally, consider obtaining relevant certifications or pursuing advanced degrees to enhance your expertise and career opportunities. Networking, attending conferences, and participating in professional organizations within the field can also be beneficial for career growth.



**Ms. Blessy Smith-A**

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Radiography education plays a crucial role in shaping competent professionals who contribute significantly to the healthcare sector.

At the School of Skill Education, Tata Institute of Social Sciences (TISS), we recognize the importance of fostering a dynamic learning environment where radiographer students can thrive under the guidance of dedicated teaching faculty.

My teaching philosophy centres on student-centred learning, where I strive to empower students to become independent and competent radiography professionals. I believe in fostering a collaborative and inclusive learning environment where students are encouraged to explore, question, and grow both academically and professionally.

Educating students about career guidance for radiographers involves providing them with comprehensive information about the profession, its requirements, pathways, and potential career opportunities. Engaging students in active learning experiences is essential for promoting deeper understanding and retention of radiography concepts. As a TISS SSE faculty, we deliver a variety of interactive learning techniques, including case studies, group discussions, simulations, and hands-on laboratory exercises. These methods not only enhance conceptual understanding but also encourage critical thinking, problem-solving, and collaboration among students.

Research and innovation are integral components of radiography education at TISS SSE. As a faculty, we actively engage students in research projects, encouraging them to explore emerging trends, technologies, and best practices in the field. By fostering a culture of inquiry and innovation, we aim to inspire students to contribute to the advancement of radiography through scholarly inquiry and evidence-based practice.

At TISS, we are dedicated to providing radiographer students with a comprehensive and enriching educational experience. By fostering strong student-faculty relationships, incorporating interactive learning techniques, emphasizing practical skill development, encouraging research and innovation, and promoting professional development, we aim to prepare graduates who are not only competent radiography professionals but also compassionate caregivers and lifelong learners. Together, we strive to advance the field of radiography and make a positive impact on healthcare delivery and patient outcomes.

Radiology is a crucial field in medicine, utilizing various imaging technologies like X-rays, MRIs, CT scans, and ultrasounds to diagnose and treat diseases. With advancements in technology, radiology has expanded its scope beyond traditional diagnostic imaging to include interventional radiology, nuclear medicine, and molecular imaging. Radiologists play a pivotal role in detecting illnesses early, guiding treatments, and monitoring patient progress. The demand for skilled radiologists continues to grow globally due to increasing healthcare needs, technological advancements, and the aging population. As a result, the field offers diverse career opportunities, research avenues, and the potential to make significant contributions to patient care and medical innovation.





**Ms. Aswathi**

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It's been a year since I joined Iqraa Academy which facilitates School of Skill Education TISS. I always wanted to be a teacher. I believe teaching is a profession which is above all other professions. My journey as a teaching faculty member in Iqraa Academy has been nothing short of transformative. Every day presents a new opportunity to ignite curiosity, foster critical thinking, and instil a passion for life-long learning among our students. Whether in the classroom, laboratory, or clinical setting, I strive to create an engaging and inclusive learning environment that nurtures intellectual growth and personal development.

One of the most rewarding aspects of my role is witnessing the transformation of eager novices into proficient technicians. Guiding students through the intricate processes of sample analysis, diagnostic procedures, and laboratory management is a task that requires patience, precision, and a profound dedication to their growth. It is immensely fulfilling to see their confidence soar as they master complex techniques and develop a keen understanding of the role they will play in healthcare.

My journey as a faculty member at TISS has been a remarkable one, filled with challenges, opportunities, and moments of profound insight and inspiration. As I look to the future, I am excited to continue playing my part in shaping the next generation of empathetic laboratory technicians and leaders.

Laboratory technology encompasses a wide range of disciplines crucial to healthcare, research, and industry. It involves the analysis of biological samples, chemicals, and materials to provide accurate data for diagnostic, research, or quality control purposes. This field includes clinical laboratory technology, where professionals perform tests on bodily fluids and tissues to aid in medical diagnosis and treatment. Additionally, laboratory technologists contribute to fields such as forensic science, environmental science, pharmaceuticals, and biotechnology. Advancements in automation, data analysis, and molecular techniques continue to expand the scope of laboratory technology, offering opportunities for innovation, research, and improving healthcare outcomes worldwide.

## REFERENCES

1. About Automotive Industry. Automotive Skill Development Council. Available at <https://careerguide.asdc.org.in>
2. Indian Pharmaceutical Industry. India Brand Equity Foundation. Available at <https://www.ibef.org/industry/pharmaceutical-india>
3. Median age: The World Fact Book. Central Intelligence Agency. Available at <https://www.cia.gov/the-world-factbook/>
4. The future of work after COVID19. McKinsey Global Institute. Available at <https://www.mckinsey.com/~media/mckinsey/featured%20insights/future%20of%20organizations/the%20future%20of%20work%20after%20covid%2019/the-future-of-work-after-covid-19-report-vf.pdf>
5. (2019). Annual Report 2018 -19. TISS SSE. Available at <https://sve.tiss.edu/> (2021). Prospectus 2021. TISS SSE.
6. Report of the Technical Group of Population Projection (2011-2036), Ministry of Health and Family Welfare, July 2020
7. Calculated based on Population Projection by MoHFW and area as provided on National Portal of India
8. Report of the Technical Group of Population Projection (2011-2036), Ministry of Health and Family Welfare, July 2020
9. Global Burden of Disease 2019 India Compare; KPMG Analysis.
10. National Health Profile 2022, Ministry of Health and Family Welfare
11. Indian Public Health Standards 2022, National Health System Resource Centre, Ministry of Health and Family Welfare
12. WHO world health statistics, WHO database 2021
13. New age healthcare delivery models in India, FICCI KPMG report Oct 2023
14. S. Varughese and G. Abraham, Chronic Kidney Disease in India A Clarion Call for Change, CJASN May 2018, 13 (5) 802-804.
15. G. Abraham et al, Chronic kidney disease hotspots in developing countries in South Asia, Clinical Kidney Journal, 2016, vol. 9, no. 1, 135–141
16. M K Mani, Kidney Disease in Developing world, Dialysis Times 2005.
17. Ballal HS, Anandh U. Haemodialysis in India. Nephrol Dial Transplant 1999;14: 2779.
18. Datta M, Mani MK. Community-based approach to prevention of chronic kidney disease: the Chennai experience.
19. V. Jha, Dialysis in India – Today and Tomorrow-ET Health World <https://health.economicstimes.indiatimes.com>
20. <https://www.asianhnm.com/articles/is-dialysis-the-next-big-opportunity-in-indian-healthcare>
21. Boschetti-de-Fierro A, et al. Extended characterization of a new class of membranes for blood purification: the high cut-off membranes. Int J Artif Organs 2013; 36:455-463.
22. Li Cavoli G, et al. High cut-off dialyser haemodialysis in cast nephropathy. Clin Kidney J 2012; 5: 80.

23. Pedrini LA, De Cristofaro V, Comelli M, Casino FG, Prencipe M, Baroni A, Campolo G, Manzoni C, Coli L, Ruggiero P, Acquistapace I, Auriemma L: Long-term effects of high-efficiency on-line hemodiafiltration on uraemic toxicity. A multicentre prospective randomized study [published online ahead of print. *Nephrol Dial Transplant* 26: 2617–2624, 2011
24. Malik, M. S., Khan, M. F., Babu , K., Siddini, V., and Ballal, S. (2023). Comparison of clinical outcomes of conventional hemodialysis and online hemodiafiltration. *International Journal of Research in Medical Sciences*, 11(8), 2942–2949. <https://doi.org/10.18203/2320-6012.ijrms20232426>
25. Sodhi K, Philips A, Mishra RC, Tyagi N, Dixit SB, Chaudhary D, et al. Renal Replacement Therapy Practices in India: A Nationwide Survey. *Indian J Crit Care Med* 2020;24(9):823–831.
26. The Health Professional Order 2001: healthcare and associated Profession, (2001).
27. National Council for Human Resource for Health Bill 2011, (2011).