



Best Practices

BEST PRACTICE -1

1. Title of Practice:

Integration of Simulation-based training in curriculum.

2. Objectives of Practice:

1. Enhance and optimize student training to make them practice-ready or industry-ready.
2. Use latest simulation-based techniques to ensure skill training of students to meet global standards
3. Train faculty in newer technique of simulation-based training to foster near-experiential learning for students.

3. The Context:

Practice-readiness and patient safety are two concepts in global healthcare that gain increasing importance every day. The emphasis on skill-based training of graduates in the Quality Mandate of the UGC as well as in the new National Education Policy 2020 underline a major area of focus for educators and educational institutions. DYPES is cognizant of these developments and has taken prompt steps to fulfil the expectations of all stakeholders.

Simulation-based training is a proven, evidence-based system of ensuring that graduates acquire basic and advanced skills in a safe learning environment with opportunities to relearn as per need. Software and Hardware advances allow a high degree of life-like, high-fidelity experiences that can be recorded, assessed, and reviewed to provide students with the required learning experience.

DYPES inaugurated a state-of-the art Simulation and Skill Center on 22nd October 2020 on the birthday of the Founder President, Dr D Y Patil (Padmashri Awardee).

4. The Practice

1. **Setting up of the SSC:** Visits to other centers in India was followed by identification of desired simulators, decisions on logistic requirements, and creation of infrastructure



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suiting for the same. Support of all management and administration was essential, and generously given.

2. **Staffing the SSC:** Appointment of trained and experienced staff who would take responsibility for the optimal utilization of the center and various simulators was considered key to its' success. This was achieved with appointment of one Centre Coordinator, a Technical Officer, one Nurse Trainer and a support staff. This has allowed for smooth scheduling of training workshops, conscientious record keeping, high standard of maintenance and upkeep and optimal utilization of the equipment.
3. **Identification of Resource Faculty:** Invitations were extended to external resource persons who were themselves experienced Faculty at other centers and were trained at prestigious flagship centers like the Mayo Clinic. Total of 40 training days by expert faculty benefited 357 stakeholders.
4. **Train the Trainers:** Initiating the training at SSC with Faculty Development Program (FDP) in Simulation Based Education (SBE) for 15 distinguished faculty from medical college and nursing college in phased manner for 3 workshops strategically spaced throughout this phase, gave an edge, and helped faculty sink in the concept easily with several practice sessions in-between. It allowed for smooth transition in teaching of some skills that were hitherto taught on models, low-fidelity simulators or in the traditional apprenticeship model. Faculty from university conducted 78 training workshops and 24 practice workshops in the SSC till June 2021.
5. **Phased introduction and training in essential skills:** BLS, ACLS, ATLS, NRP, Adverse events following immunization (AEFI) were conducted initially followed by training on patient simulators. Later on surgical simulators were used for endoscopy and laparoscopy training followed by ultrasound training. Anatomage trainings were also conducted in this phase.
6. **Serving a felt need:** Keeping in mind the intense focus on communication skills and soft skills in terms of interaction with stakeholders, the Communication Skill laboratory was set up by the IQAC within the ambit of the SSC.
7. **Institutionalization of SSC:** All constituent units of the university benefited from the SSC. Students from all levels viz. PG, Interns, UG, Faculty and different disciplines like



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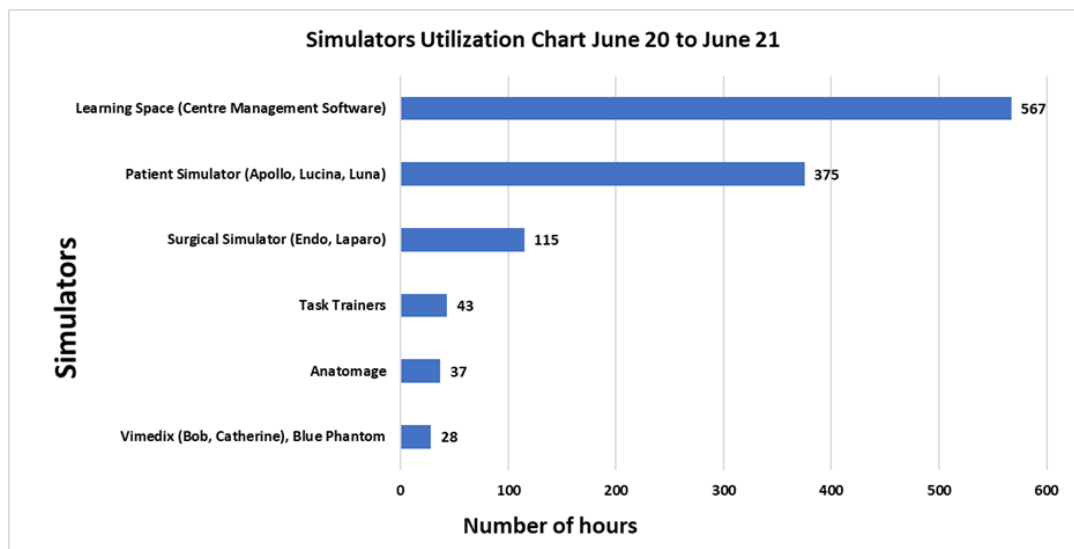
Nursing, Physiotherapy, and Medical as well as non-teaching staff were trained. The SSC trainings (BLS) are part of the Orientation (Induction) sessions of all programs.

8. **Feedback processes:** regular online feedback is taken from attendees of the various workshops with regular analysis being done to ensure that any potential scope for improvement is used.
9. **Certification:** The need to certify the persons who completed specified training was felt and certificates were presented to those who fulfilled the requirements or assessment standards.

5. Evidence of Success

1. Optimal Utilization of Trainers & Simulators:

The utilization of the simulators exceeded expectations. The SSC was awarded the 'Fastest Growing Simulation Lab' by CAE, India later in the year.



2. Output in terms of Workshops Organized



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Training data from June 2020 to June 2021			
Sr No	Month	No. of beneficiaries	No. of workshop
1	Nov-20	129	5
2	Dec-20	117	13
3	Jan-21	226	29
4	Feb-21	186	41
5	Mar-21	166	33
6	Apr-21	83	5
7	May-21	290	11
8	Jun-21	2	2
	Total	1199	139

Faculty from university conducted 78 training workshops and 24 practice workshops in the SSC till June 2021.

3. Beneficiaries of the workshops

The use of SSC for training and education has been institutionalized and is a part of the orientation program of new admissions in all health science programs.

Section wise data from June 2020 to June 2021							
Month	Beneficiaries	BPTb	PG	Intern	Nursing	Faculty	Others
Nov-20	129	0	0	112	0	17	0
Dec-20	117	0	78	0	0	39	0
Jan-21	226	0	154	28	9	31	4
Feb-21	186	6	67	71	0	34	8
Mar-21	166	21	95	11	14	24	1
Apr-21	83	10	0	0	26	34	13
May-21	290	0	0	267	0	0	23
Jun-21	2	0	0	0	0	0	2
	1199	37	394	489	49	179	51



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4. Faculty Development Program:

Faculty training workshop from June 2020 to June 2021			
SR. NO	NAME OF WORKSHOP	NO. OF BENEFICIARIES	NO OF WORKSHOP
1	ACLS	2	1
2	BRANCHO-SCOPY (FACULTY PRACTICE WORKSHOP)	4	4
3	FACULTY PRACTICE WORKSHOP (ENDOSCOPY)	5	4
4	FACULTY PRACTICE WORKSHOP (ANATOMAGE)	8	5
5	FACULTY PRACTICE WORKSHOP (LAPAROSCOPY)	7	5
6	FDP IN SBE	27	2
7	FDP SBE- MEDICAL	15	1
8	IAP BLS (PROVIDER LEVEL) WORKSHOP	36	1
9	ORIENTATION & PRACTICE- PATIENT SIMULATORS	25	3
10	TOT- ANATOMAGE –MEDICAL	10	2
11	TOT-ANATOMAGE- PHYSIOTHERAPY	1	1
12	TRAINING OF TRAINNERS	17	1
13	Vimedix & OBG (FACULTY PRACTICE WORKSHOP)	1	1
	Total	158	31

5. Research work generated

Three projects by faculty and 3 posters presented by PG students at the National Conference were conducted at the SSC.

6. Academic Offerings to students covered multiple requisite skills:

Students data from June 2020 to June 2021			
Sr. No	Name of Workshop	No. Of Beneficiaries	No of Worksho
1	ACLS	361	38
2	ADVERSE EVENT FOLLOWING IMMUNIZATION (AEFI) TRAINING	41	3
3	ATLS-I	28	3
4	BLS WORKSHOP FOR PHYSIOTHERAPY	6	1
5	ENDOSCOPY ORIENTATON WORKSHOP	40	3
6	FELLOWSHIP PRACTICE (ENDO-TRAINER)	11	6
7	FELLOWSHIP PRACTICE WORKSHOP (LAPAROSCOPY)	16	7
8	FIBER OPTIC LARYNGOSCOPY WORKSHOP	9	1
9	INTERNSHIP ORIENTATION PROGRAMME	379	12
10	LAPAROSCOPY ORIENTATION WORKSHOP ESSENTIAL SKILL FOR OB	13	2
11	LAPAROSCOPY ORIENTATION WORKSHOP ESSENTIAL SKILL FOR SU	12	2
12	NRP	26	3
13	PAEDIATRIC COVID-19 TRAINING FOR HEALTHCARE PROVIDERS WC	17	1
14	STUDENT WORKSHOP (ENDOSCOPY)	42	22
15	WORKSHOP ON ANATOMAGE FOR B.P.Th	40	4
	Total	1041	108

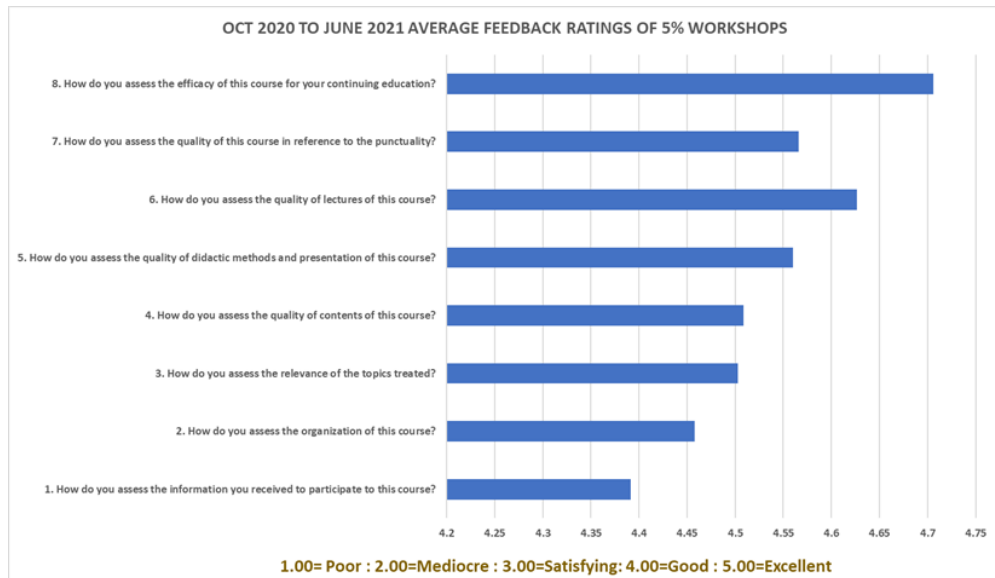
7. Contributions to Academic Upskilling of teachers

Research projects of 3 faculty undergoing the Advance Course in Medical Education offered by the National Medical Commission, New Delhi were based on simulation techniques in education.



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8. Satisfaction of Stakeholders



6. Problems Encountered and Resources Required

No	Problem Encountered	Resources Required
1	Learning simulation-based teaching needs a lot of unlearning and relearning for faculty	Repeated training, practice workshops, observership and excellent trainers
2	Scheduling of workshops to integrate with pandemic restrictions	Core team for decision-making, small group discussions, flexibility, adaptability.
3	Scheduling of workshops to integrate with academic calendar and work duties of PG	Core team for decision-making, small group discussions, discussions with HODs and Intern-Coordinator, Fellowship-Coordinator, flexibility, adaptability.
4	Enforcing behavior rules within SSC to ensure equipment safety	Training of faculty and students, handholding in initial stages, provision of gloves
5	Need for accurate and exhaustive record-keeping	Use of technology and IT support



D. Y. PATIL
EDUCATION SOCIETY
KOLHAPUR

(INSTITUTION DEEMED TO BE UNIVERSITY)

(Deemed to be University Declared u/s 3 of the UGC Act 1956 vide Notification No. F.9-26/2004- U.3 dt. 01-09- 2005 of the GOI)

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Notes:

1. Faculty participation was positive and enthusiastic. This made the initiation easier.
2. Interdisciplinary collaboration increased with the joint faculty trainings.
3. Scheduling of training must be in synchrony with the curriculum and integration of the two needs planning and innovativeness.
4. Visitors to the SSC have been highly appreciative of the facilities. They range from Professors, Vice Chancellors, Chancellors and Senior Academicians and Administrative Officers from private and Governmental institutions.



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BEST PRACTICE -2

7. Title of Practice:

Inter Professional Collaborative Practice (IPCP) during disaster.

8. Objectives of Practice:

The D Y Patil Education Society Deemed University prides itself on a heightened sense of Social Responsibility as also on the Interdisciplinary nature of its programs and research. Objectives of this practice

1. Ensure optimal health services during the Covid 19 pandemic by utilization of all resources available to the University
2. Ensure ongoing teaching-learning for the students through the online platforms available, to match the theory syllabus to be covered.
3. Generate a model for interdisciplinary, interprofessional collaborative practice that could be used in future.

9. The Context:

Hospital Healthcare is a complex process with increasing collaboration by clinical professionals with professionals from other fields. These collaborations involve fields as varied as basic sciences, technical sciences and IT professionals amongst others. However, the traditional system of medicine operates in silos with even clinical professionals of different disciplines working independently.

Previous experience with a natural disaster in the local region viz the Krishna River Floods in 2018, showed us that during the relief efforts, unknowingly and unplanned, members from different professions worked together to provide respite to the victims.

Hence when it became apparent that the SARS CoV2 pandemic (COVID 19) was a natural disaster of epic proportions, it was determined to ensure optimal health services within the constrained circumstances using a deliberate interprofessional and interdisciplinary approach.



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10. The Practice

A meeting was held between the Dean of the D Y Patil Medical College and Dr D Y Patil Medical College Hospital and Research Institute, IQAC Director, and Medical Superintendent to discuss the framework and planned activities.

The steps subsequently followed were

1. **Identification of the various segments** where operations would be functional
2. **Constraints** of lockdown, duty hours, exposure levels created due to pandemic were noted
3. **Logistic needs** were identified for establishment of segregated areas such as Flu OPD, quarantine wards, Swab Collection site, Molecular Biology Lab, etc.
4. **Professional skills needed** were identified as:
 - a. Infrastructure creation – separating entrances, using existing spaces with care for quarantine and social distancing, Flu OPD establishment, ensuring protection of patients' in working OBGY department
 - b. Laboratory Management Skills – establishment and NABL Accreditation of the Molecular Biology Lab were to be done.
 - c. Technical innovation – making sample collection and transportation safe for the healthcare workers
 - d. IT skills- handling data upload and data entry in the portal for information to be transferred to ICMR, Government ministries.
 - e. Training – for faculty training to enable their usage of online teaching platforms; staff to upload data in portal
 - f. Networking Skills – to ensure procurement of gloves, masks, PPE kits, etc.
 - g. Additional manpower in view of possible Sick Leave among staff, to replace some staff that had left work in fear and to fulfill additional staff requirements due to shorter duty hours and increased specialized technical work.
 - h. Design of new boards, posters, information sheets and signages for patients, doctors, nurses etc.
 - i. Media support to pass on information to all employees, and to the community as per the changing situation



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- j. Diet and Nutrition provision for patients – the Caterer of the canteen had closed and left for his village.
- k. It was recognized that with time, additional assistance may be identified and solicited.
5. **Available resources were listed to include** – Preclinical Departments, Paraclinical Departments, Nursing College, Physiotherapy College, IT Department of University, Media Department, College of Hospitality studies, Department of Stem Cell and Regenerative Medicine, Department of Community Medicine from within the University. Outside the University, collaboration was done with the College of Engineering and the Polytechnic College, Kasaba Bawada.
6. Simultaneously, **the collaborative establishment of**
 - a. Quarantine Wards – manned by faculty from all clinical departments as well as preclinical and paraclinical departments
 - b. Molecular Biology Lab for COVID testing – jointly established, accredited, and then operated by Medical Microbiology, Medical Biotechnology, Stem Cell & Regenerative Medicine, Pathology departments and the IT Department.
 - c. Flu OPD – Run by Department of Community Medicine and Nursing College, ably supported by staff from College of Engineering and Polytechnic
7. Duty rosters, staff training, and shift allocation were all **shared by members** of the different professions, departments, units and institutions.
8. **Review meetings** included members of different units and departments, something that was not the norm in pre-pandemic times.

11. Evidence of Success

9. Participation of different professions, institutions, units and disciplines
10. NABL Accreditation of the Molecular Biology Laboratory was achieved in record time and the Lab was ready to test for SARS COV2 virus through RTPCR by May 2020.
11. Smooth running of hospital over 18 months as a dedicated COVID Hospital
12. Cooperation and support of different departments and professions was seen with patient care not suffering. There were no disciplinary matters, complaints or grievances raised due to the change of working patterns and personnel.



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13. Collaboration with the district administration to share both diagnostic and therapeutic workload, during both first and second wave. This was possible due to efficient functioning of the hospital and excellent patient care
14. Donations from Rotary Sunrise resulted due to the work being done
15. Ability to continue the work in the Department of Obstetrics for the expectant mothers – the only Obstetric department to be operational in the district during the lockdowns.

12. Problems Encountered and Resources Required

No	Problem Encountered	Resources Required
1	Different training needs of members of various professions	Repeated training; Peer support; Trainings that covered basics and advanced information were given.
2	Changing government directives had to be communicated to all	WhatsApp group was created for communication with all members
3	Travel challenges for duty and emergency calls, during lockdown	Provision of transport to all staff needing it, irrespective of profession or institution.
4	Initial lack of familiarity with persons on duty caused hesitancy in talking	Joint trainings, group reviews and joint duties sorted the challenge
5	Non-medical persons were more scared of getting infected compared to HCW	Hospital provided free N95 Masks, PPE, Sanitizers. Duty rosters were altered to suit stress of work. Social distancing, Sample collection kiosks, and regular sanitizing of the premises and indoors were provided.
5.	Trained personnel becoming COVID 19 positive affected the morale	Regular meetings, encouragement and motivation, psychological support through services of counsellor were needed.



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Notes:

5. Willing cooperation of participating staff was pivotal
6. Attitude to abilities and knowledge of skills of other professionals was found to increase as time went by, increasing the respect they had for each other.
7. Appreciation and motivation of staff facilitated (especially) the initial period of adjustment and learning.