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INTERPROFESSIONAL EDUCATIONAL MODULE AN EFFECTIVE TOOL TO OVERCOME THE STIGMA ASSOCIATED WITH HIV/AIDS AMONG DENTAL PROFESSIONALS

Dr. Arun Reddy MDS[1*], Dr.Arya Vijayan MD[2], Dr. Gurmeet Singh Rajpal[3], Dr. Gaurav chahal[4], Dr.Prakash Kumar[5], Dr.Deepakkumar Jairamdas Nagpal MDS[6]

[1*]DEPT of Orthodontics Reader Navodaya Dental College Raichur
[2]DEPT of BioChemistry Assistant Professor NY Tasgoanakar Institutes of medical sciences
[3]DEPT of Pathology Assocate Professor Shyam Lal Medical College Khagaria Bihar
[4]DEPT of Periodontics Professor Seema Dental College Dehradun UP
[5]DEPT of Conservative & Endodontics Reader Triveni Institute of Dental Science Hospital & Research Center Chhattisgarh
[6]Oral Pathology & Microbiology Professor & Head Swargiya Dadasahed Kalmegh Smruti Dental College & Hospital Nagpur, Maharashtra

***Corresponding author:** Dr. Arun Reddy MDS
*DEPT of Orthodontics Reader Navodaya Dental College Raichur

Abstract

Background:
The current pandemic has shown that, to combat serious issues it's important to work collaboratively. In the pre-COVID era one of important context was stigma associated with HIV/AIDS including in the health care sector .India being one of the highest numbers estimated people living with HIV in the world, there is a need to cultivate non-judgmental attitude towards the care of people infected with HIV/AIDS especially in dental care. This requires systematic and sensitive educational program. Recent trends have emphasized the use of Interprofessional education (IPE) as a very effective tool to overcome such barriers in delivering optimal health care to these patients. We attempted an IPE module with involvement of diverse specialties to overcome the stigma in HIV/AIDS.

Methods: an Interprofessional team from diverse sectors was made in vision of utilizing their expertise in relation to HIV stigma. A Module containing diverse areas from myths and fears to stress management was prepared by the team. It was implemented on faculty, followed by interns and the target population being 68 3rd Bachelor of Dental Surgery (BDS) students giving them early clinical learning and guidance.

Results: the module was evaluated using pre and post test questionnaire and feedback **.**Statistically significant results were found in both the faculty and students.

Conclusion: Interprofessional education is an effective tool if used appropriately it can be a way for collaborative effort in health and education.

Key words: Interprofessional education, Stigma, HIV/AIDS

Introduction:

The current COVID-19 pandemic along with its physical effect on the body has also created a social stigma and discrimination with people perceived with the disease. The reasons of same as summarized by WHO is fear of Unknown, lack of information and the most critical is the misinformation spread. This has lead to difficult situations especially the front line warriors including doctors, nurses, Police and media. A concrete strategic plan has to be implicated to handle such problems to make a better health outcome using a proven practical approach. In the pre-covid era similar discrepancies and stigma was commonly seen in people living with HIV (PLWHIV). It is more than three decades now, and we still find PLWHIV facing a lot of stigma and discrimination within society and to their dismay from health care professionals too.[1-3] The reasons for this discrimination are quite varied but most commonly due to the lack of awareness and ignorance on the part of the healthcare professional about the epidemiology of the disease. This includes for the stigma associated with COVID-19 also. The current scenario in most of our dental institutes is that, we work in silos, not interacting or collaborating with expert's knowledgeable about dreaded diseases like HIV. All healthcare workers, especially direct caregivers like physicians, surgeons, dentists, nurses, and technicians are at risk for occupationally acquired HIV infections due to the increased chance of exposure to blood and other body fluids of patients. The current trend of moral panic about AIDS and the theories of deviance that go with it are not a new phenomenon. People expect dental professionals to know all about HIV/ AIDS, but many experience the same fear and ignorance as the public and hence avoid delivering treatment to these patients. This forces the PLWHIV visiting dental clinics from disclosing their status, thereby creating a greater risk especially for young inexperienced dental students. [4]

Current Trends

New treatment modules such as highly active antiretroviral therapy (HAART) have increased the lifespan for these afflicted patients, and HIV positivity is presently considered as a chronic manageable disease in medical practice. Increased lifespan leads to increased frequency of such patients visiting the dental clinics. Very few PLWHIV honestly disclose their status. To add on to the woes of these patients, we dental professionals find ourselves incompetent to deliver routine procedures such as root canal treatment, implants or disimpaction in a prompt manner (Fig. 1). Studies have shown that if proper training in managing HIV patients is provided, there is a positive attitude in dental professionals and students to treat such patients.[5-6] Unfortunately, there is paucity and no such training modules are currently incorporated in the curricula for increasing the competencies in managing patients with HIV/AIDS in dental practice. Hence there is a need to cultivate a nonjudgmental attitude towards the care of people infected with HIV/AIDS. This requires systematic and sensitive educational programmes which can overcome the gaps in our current dental teaching curriculum. Recent trends have emphasized the use of Interprofessional education (IPE) as a very effective tool to overcome such barriers in delivering optimal health care to these patients. The IPE is defined as a process by which a group of students (or workers) from health-related occupations, with different educational backgrounds, learn together during certain periods of their education.[7-8] Interprofessional approaches to patient care are believed to have the potential for improving professional relationships, increasing efficiency, and coordination, and ultimately enhancing patient and health outcomes.[7-9] After understanding the current needs, an Interprofessional training module can be a useful strategy to overcome the stigma.

Aims and Objectives: The current IPE module was aimed to overcome stigma towards HIV positive patients visiting dental clinics designed for 3rd year BDS students with following objectives At the end of the training programme the Participant (3rd BDS students) should

- Have a positive attitude, updated knowledge and appropriate skills in managing HIV positive patients.
- Be able to perform universal safety procedures in routine practice

- Be aware of medicolegal & ethical issues related to HIV sero-positive patients
- Be able to counsel HIV Positive Patients.
- Be aware of the methods of pre and post exposure prophylaxis.

IPE team and their roles:
The IPE team was made, which included the following professionals
1. HIV Medicine expert
2. Medicolegal expert
3. NGO
4. Stress management expert
5. Communication skill development expert.
6. Media expert

Methodology:
After taking the necessary institutional permissions and ethical clearance from the institutional ethical board, the study was initiated with formation of an IPE team based on the availability, feasibility, interest and motivation of the team members. Need assessment was done among the faculty and students of our institute. The result showed strong positivity for IPE module. Based on the need assessment outcome a module was designed with contents including diverse areas of handling HIV related stigma. The module was first implemented on the faculties of the various branches of dentistry of our institute. It was in the form a workshop of various sessions spanning over 2 consecutive. The module was presented using various teaching learning tools including lectures, group-activities, presentations, and role plays. The programme was evaluated using pre and post test using a prevalidated questionnaire. After training the faculty a similar model was done for the dental interns. This repetition helped us to refine the module and also reach out to maximum professionals. The target population selected where the third year BDS students as they are having first time exposure to clinics and one of the high risk to get exposed to HIV through needle prick injuries. This will give them early clinical exposure and make them well prepared to develop sufficient skills and competencies. Based on the time schedule of the students each day 1-hour module was conducted. A total of 15 hours module was performed. To make it more interactive and creative, we also included poster competition & short plays performed by the students.

Results
Faculty development Programme:
- Total number of participants where 30.
- Statistically significant results were observed after comparison of pre and post test scores using A Wilcoxon signed ranks test indicated that post test scores were statistically significantly higher than per test scores. $P<0.001$ (table 1a-1b)
- Strong positive feedbacks from the participants were expressed and were enthusiastic to work along in the project as well as on patients.

Students: a total 68 students had participated in the module. Statistically significant difference was seen between pre and post intervention values regarding HIV awareness among the study participants. $P <0.001$ (table-2).
The module was also evaluated with a feedback form, in which there was a strong positive response by all participants and a change in attitude especially among students was observed, through the feedbacks.

Discussion
Fear and stigma has accompanied the AIDS epidemic from the start, [6] which functions as a major barrier in providing proper care for these patients. There are very few dental institutes in India trying

to overcome this barrier. The current project was an attempt to move a step ahead and make our students gain more confidence in managing such patients. The present curriculum focuses only on the oral manifestations seen in HIV patients but very little stress is given in managing them. Therefore, a curriculum was planned using the "SPICES" model.[9-10] various teaching-learning methods were used to have more effective outcome. Videos were used to demonstrate stigma and discrimination and the pathogenesis of HIV. Motivational sound clips to make students aware of important aspects which are routinely neglected in day to day practice. Open discussion was used for medical law and ethics. Power point presentation was one of the methods employed to teach post exposure prophylaxis. Demonstrations were given to show various laboratory and dental chair-side measures to detect HIV/ HbsAg status. Role play was the most appreciated method for teaching counseling methods. Students actively participated in the discussions and educational activities kept them involved in the programme. The feedback received at the end of three-day session was positive with the only negative aspect that many topics were taught in a short time.

New treatment modules (highly active antiretro-viral therapy) have increased the life span for these afflicted patients and HIV positivity is presently considered as a chronic manageable disease in medical practice. Increased life span leads to increased frequency of such patients visiting the dental clinics. Very few PLWHIV honestly disclose their status. Such findings have been reported by Elizondo JE et al, where they found that there are social inequalities regarding care to HIV positive patients among dental practice and that dentists must be trained and qualified to manage such patients. [11] To add on to the woes of these patients, we dental professionals find ourselves incompetent to deliver routine procedures such as root canal treatment, implants or disimpaction in a prompt manner. Alshouibi E, Alaqil F in their study showed a very high stigmatization of such patients among senior dental students of their group. The most significant predictors of discrimination included fear of accidental exposure, reluctance to provide treatment to these patients, and self-protective concerns. [12-16] Studies have shown that if proper training in managing HIV patients is provided, there is a positive attitude in dental professionals and students to treat such patients. Unfortunately, no such training modules are currently incorporated in the curricula for increasing the competencies in managing patients with HIV/Hepatitis in dental practice. Hence there is a need to cultivate non-judgmental attitude towards the care of people infected with HIV/AIDS. This requires systematic and sensitive educational programmes which can overcome the gaps in our current dental teaching curriculum. Recent trends have emphasized the use of Interprofessional education as a very effective tool to overcome such barriers in delivering optimal health care to these patients. Interprofessional education is defined as a process by which a group of students (or workers) from health-related occupations, with different educational backgrounds, learn together during certain periods of their education.[1-2] Interprofessional approaches to patient care are believed to have the potential for improving professional relationships, increasing efficiency and coordination, and ultimately enhancing patient and health outcomes.[1-3] After understanding the current needs, an Interprofessional training module as enlisted in the table 4 below can be a useful strategy to overcome the stigma.

According to National Strategic Plan (NSP) for HIV/AIDS, by 2020, the focus of the national programme should be on achieving the following fast-track targets [4]:

- 75% reduction in new HIV infections
- 90-90-90: 90% of those who are HIV positive in the country know their status, 90% of those who know their status are on treatment and 90% of those who are on treatment experience effective viral load suppression
- Elimination of mother-to-child transmission of HIV and Syphilis
- Elimination of **stigma and discrimination**

But the report does not describe any strategies, to achieve elimination of **stigma and discrimination.** Hence a need to develop and implement the proposed IPE module could bring us close to achieving this change.

The effective outcome of the programme was evaluated by a significant result obtained from comparison between pre & posttest questionnaire. Extensive literature search gave very little information about similar projects conducted, making this study a unique model.

Conclusions:

Working as an Inter Professional team with an integrated approach was an effective tool to communicate and overcome the barriers associated with the dreaded disease such as HIV/AIDS. A change was observed not only in the students who participated but also by the staff of various departments. Similar projects need to be conducted continuously, to inculcate positive attitude and indiscriminate behavior towards such group of patients. A Concerted effort should be made by implementing a curriculum designed to enhance the knowledge & skills of dental students; if we hope to save HIV/AIDS patients from the discrimination. This module can become a standard reference to deal with similar situations especially in the current pandemic time were we observe various reports of stigma and discrimination among COVID-19 infected individuals of various backgrounds. It's now time to break the barriers of professional supremacy but come together for the health and wellbeing of our society. This pandemic has made this point very clear that Interprofessional collaboration are need of hour and it should begin from bringing Interprofessional education to our routine practice.

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Tables

Table 1a: result of faculty development programme showing Descriptive statistics

Descriptive Statistics					
	N	Mean	Std. Deviation	Minimum	Maximum
pre1	30	2.03	.765	1	4
pre2	30	2.60	.724	1	4
pre3	30	4.33	1.184	2	7
pre4	30	3.10	1.213	0	5
pretotal	30	12.07	2.067	7	16
post1	30	2.37	.809	0	3
post2	30	3.63	.850	0	4
post3	30	6.33	1.348	0	8
post4	30	4.63	.964	0	5
posttotal	30	16.97	3.459	0	20

Table 1b: result of faculty development programme showing test statistics

Test Statistics[a]					
	post1 - pre1	post2 - pre2	post3 - pre3	post4 - pre4	posttotal - pretotal
Z	-1.908[b]	-3.613[b]	-3.812[b]	-4.256[b]	-4.182[b]

Table 2: results of 68 students participated in the module showing significant difference between pretest and posttest.

Statistics

		pre1	post1	pre2	post2	pre3	post3	pre4	post4	pretot	Posttot
N	Valid	68	68	68	68	68	68	68	68	68	68
	Missing	0	0	0	0	0	0	0	0	0	0
Mean		1.84	2.51	2.34	3.56	4.07	6.22	2.93	4.59	11.15	16.84
Median		2.00	3.00	2.00	4.00	4.00	6.00	3.00	5.00	11.00	17.00
Std. Deviation		.704	.702	.725	.720	1.097	1.104	1.012	.777	2.132	2.483
Percentiles	25	1.00	2.00	2.00	3.00	3.00	6.00	2.00	4.00	10.00	16.00
	50	2.00	3.00	2.00	4.00	4.00	6.00	3.00	5.00	11.00	17.00
	75	2.00	3.00	3.00	4.00	5.00	7.00	4.00	5.00	12.75	18.00

Table 4: Interprofessional module to combat stigma associated with HIV

Sr No	Interprofessional team area	Role
1.	Medical subject expert	Myths & fears, Universal safety precautions, Post exposure prophylaxis (PEP)
2.	Dental subject expert	Safe techniques, Universal precautions, PEP,
3.	Counsellor	Counseling doctors and patients
4.	NGO	Gate to patient care and wellbeing
5.	Stress Management expert	To counter stress associated with the disease
6.	Medico legal expert	An important part of the module
7.	Media	Help promote education and make patients more acceptable in the society

8.	Communication skills expert	A core area of all health care professionals

Legends

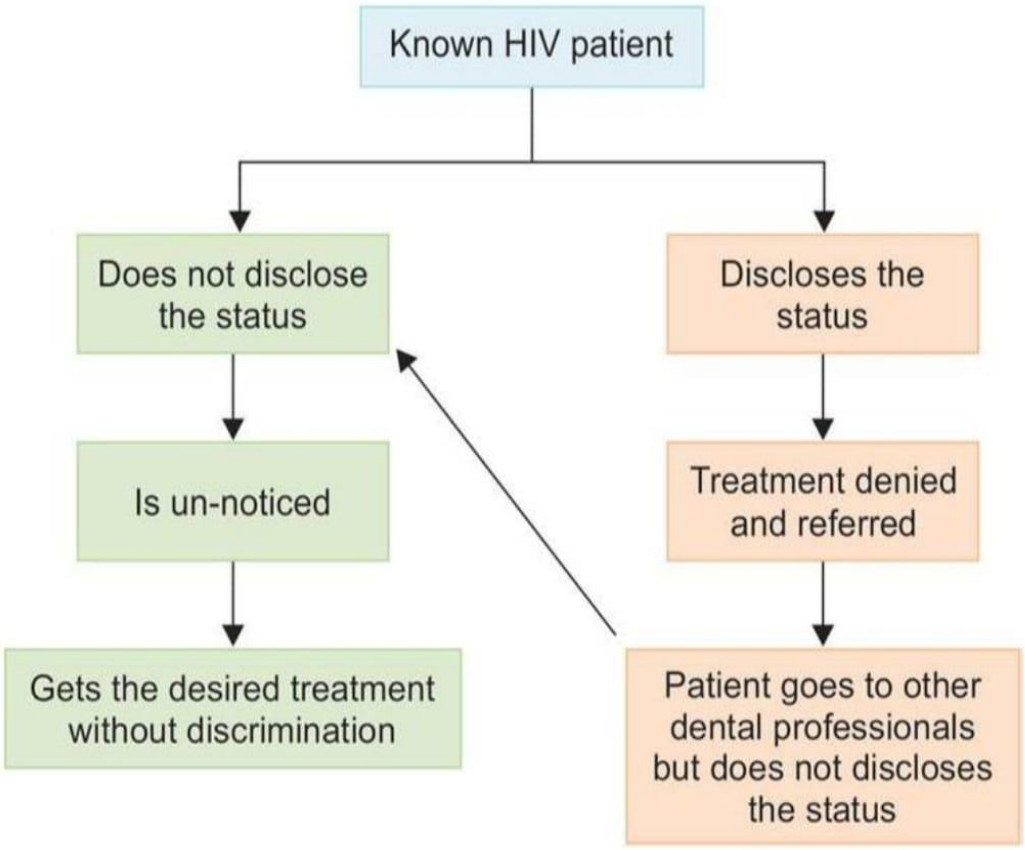


Figure 1: Current trends in dental clinics.

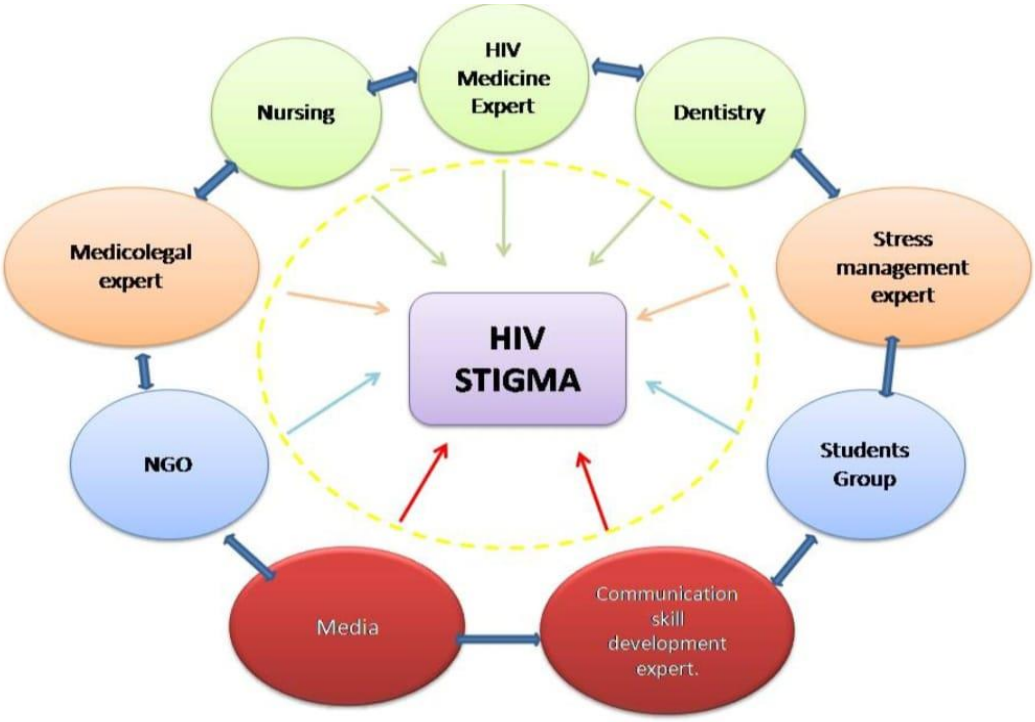


Figure 2: IPE TEAM for overcoming HIV stigma

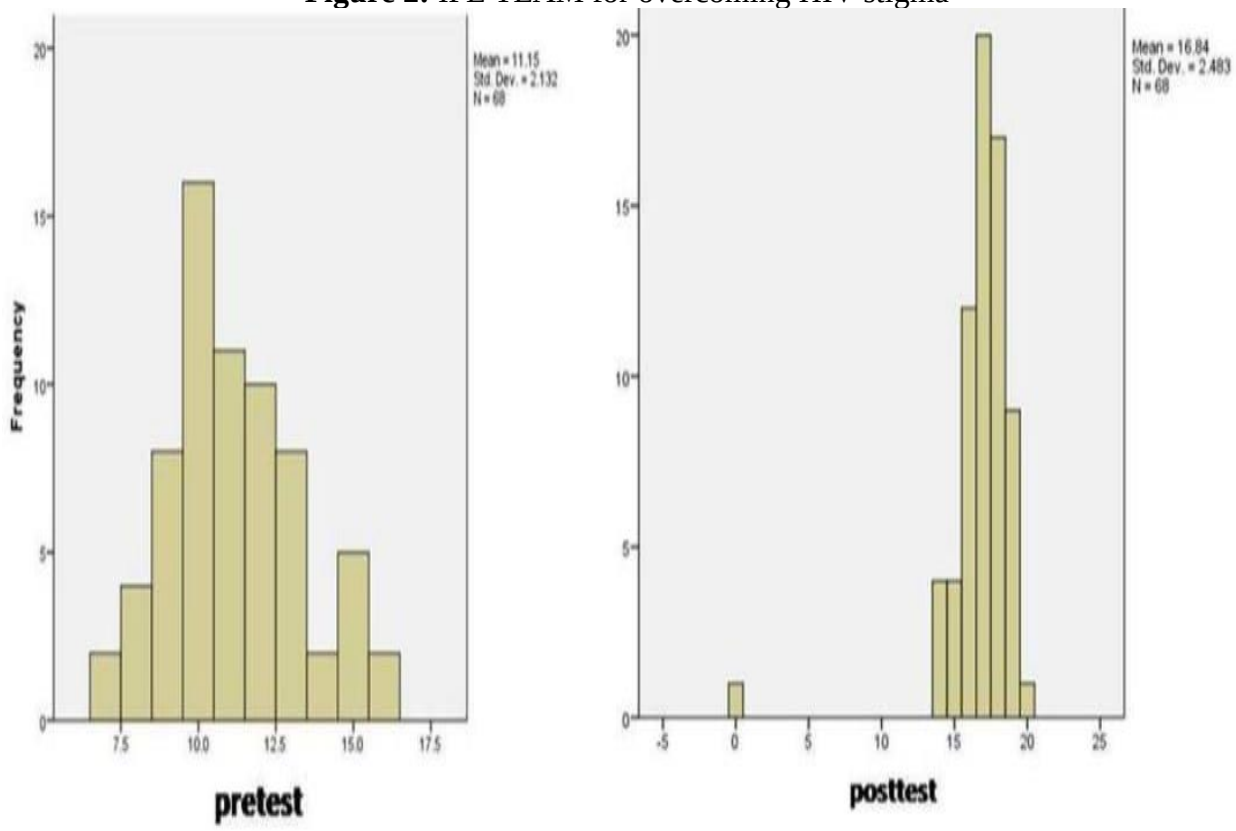


Figure 3: Histogram showing pretest and posttest results of the students participated in the module.