

COMMENTARY

Conference Equity in Community Medicine: A Brief Analysis of Financial and Geographical Barriers to Participation at Community Medicine Conferences

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ABSTRACT

Background: Academic conferences in community medicine offer valuable learning platform for postgraduate residents and faculty. However, to demonstrate commitment towards conference equity, financial and geographical barriers need to be enumerated and eliminated. **Materials & Methods:** Academic medical conferences representing the specialty of community medicine or preventive and social medicine, held between 1st April 2023 – 31st March 2024, were included under the study. Variables identified for the study included registration fees, location, affiliation to professional society, geographical scope, presence of virtual/hybrid component, and availability of scholarship/travel grant for postgraduate residents. **Results:** None of the conferences were held in resource-constrained states of India – the North Eastern Region (except Assam) and islands of Andaman, Nicobar, and Lakshadweep. Only 2 out of 31 conferences had virtual or hybrid component and none of the conferences offered financial support for postgraduate residents. The study found no significant difference in conference registration fees between members and non-members for postgraduate residents and faculty. **Conclusions:** Registration fees and location of conferences are critical geographical and financial barriers to effective participation. Membership to societies offer no advantage over non-membership in terms of financial benefits of participation at conference.

KEYWORDS

Conferences; Medical Education; Community Medicine; Equity

INTRODUCTION

Academic conferences are valuable platforms and great learning tools to enable continuous professional development through academic discourse, skill enhancement, sharing best practices, and networking opportunities.(1-3) Conferences also offer opportunity for young

postgraduate residents to present scientific research through oral and poster presentations, as also mandated by National Medical Commission.(4,5) However, physical conferences are often associated with notable costs, wasted resources, inequalities in participation, and large carbon footprint.(2,6)

Postgraduate resident doctors also often face significant financial barriers that may limit their attendance and engagement at conferences.(7)

The COVID-19 pandemic unrolled an unintended benefit of virtual conferences that levelled the playing field and increased access to broader and more inclusive participation, unrestricted by geography or economy.(1) Virtual conferences also had the added advantage of reducing carbon footprint, by as much as 90%.(8) However, with the end of pandemic, conferences also receded back to their usual in-person events without virtual components and once again skewed participation towards those with geographical and economic advantages.

Conferences offer opportunity to demonstrate commitment towards diversity, equity, and inclusion. 'Conference equity' is the attainment of an equitable level engagement, influence, and access to a conference by attendees regardless of location, available funds, or affiliation. (2) As a specialty which promotes and imbibes the concepts of equity in its academics and practices, it is crucial for community medicine conferences to demonstrate equity through enabling equitable access to learning. A brief study was designed with the objective to describe financial and geographical barriers for participation in academic medical conferences of community medicine.

MATERIAL & METHODS

Academic medical conferences representing the specialty of community medicine or preventive and social medicine, held between 1st April 2023 – 31st March 2024, were included, to ensure current representativeness of study variables. Institutional and extremely local conferences were excluded due to the inability to systematically identify all study variables because of informal information sharing.

Registration fees for the conferences were collected from conference websites, brochures, or affiliated society's websites. If

unavailable, attempts were made to contact the organizing committee or registration fees for the same conference from previous year was included. To maintain uniformity and assuming that most participants pay early to minimize costs, only "early bird" fees of the conferences were included for analysis.

Conferences were categorized by location, affiliation to a professional society, geographical scope, presence of virtual or hybrid component, and availability of scholarship or travel grant for postgraduate residents. Registration fees were categorized by career stage and membership status of participants. Fees for foreign delegates, wherever available in USD, was converted to INR on currency exchange rate of 1st October 2023 (mid-financial year; 1 USD = INR 83.12) and rounded off to closest 100.

Data were tabulated on Microsoft Excel version 16.70 (Microsoft Corporation) and SPSS version 28 (SPSS, Inc., Chicago, IL) was used for statistical analysis. Nominal and categorical variables were expressed as frequency (n) and proportion (%). Registration fees were assumed to be non-normally distributed, confirmed by normality tests, and expressed as medians and interquartile range (IQR). Independent samples t-test was performed to check for association of registration fees between membership status of residents and faculty separately. Data visualization was done on map using India in Pixels (<https://iipmaps.com>).

RESULTS

A total of 38 academic medical conferences in the field of community medicine or preventive and social medicine were identified in the study period, out of which six were excluded during analysis due to unavailability of information related to registration fees or ambiguous specialization status and one was excluded due to duplication.

The 31 conferences were hosted by 11 different professional societies in 22 different states and union territories. Indian Association of Preventive & Social Medicine (IAPSM)

hosted/co-hosted maximum conferences (21, 67.7%) and the state of Tamil Nadu was the host for highest proportion of conferences among all states and union territories (5, 16.1%). (Figure 1, Table 1) Only 2 (6.5%) out of 31 conferences had virtual or hybrid component and none of the 31 conferences offered scholarship/financial support/travel grant for postgraduate residents. (Table 1) Most conferences (9, 29%) were held in the month of December while none were held in May.

Figure 1. National map of India showing state-wise distribution of conferences.

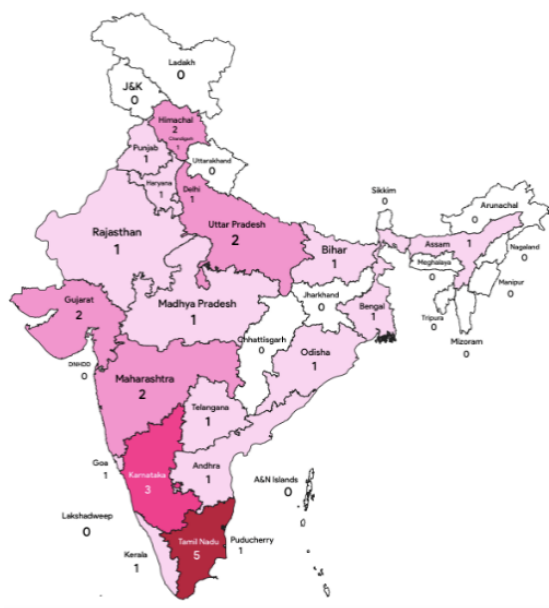


Table 1. Conferences with affiliated society, geographical scope, presence of virtual / hybrid component, and student scholarship (n = 31)

	Frequency (n)	Proportion (%)
Affiliated Society		
Indian Association of Preventive & Social Medicine (IAPSM)	17	43.6 %
Indian Public Health Association (IPHA)	5	12.8 %
Joint IAPSM-IPHA	4	10.3 %

	Frequency (n)	Proportion (%)
Epidemiology Foundation of India (EFI)	1	2.6 %
Association for Prevention & Control of Rabies in India (APCRI) / Consortium Against Rabies (CAR)	2	5.2 %
Unaffiliated/Affiliated to Host Institution	4	10.3 %
Other affiliations	6	15.4 %
Geographical Scope		
State	11	35.5 %
Regional	4	12.9 %
National	11	35.5 %
International	5	16.1 %
Virtual / Hybrid Component		
Yes	2	6.5 %
No	29	93.5 %
Scholarship / Travel Grant for Postgraduate Residents		
Yes	0	0 %
No	31	100 %

All conferences offered different registration fees as per career stage of participants and most conferences affiliated to a professional society offered discounted fees for members. 18 out of 31 (58.1%) conferences hosted a pre-conference workshop or CME whose registration fees ranged from INR 500 to INR 2950 (Median: INR 1240; IQR: INR 875-1500). 20 out of 31 (64.5%) conferences offered participation for undergraduate students whose registration fees ranged from INR 0 (free participation) to INR 4000 (Median: INR 1500; IQR: INR 950-2125). 9 out of 31 (29%) conferences offered separate registration fees for foreign delegates whose registration fees ranged from INR 1500 to INR 25000 (Median: INR 12500; IQR: INR 12000-16600). 21 out of 31 (67.7%) conferences offered separate registration fees for family members accompanying delegates whose registration fees ranged from INR 500 to INR 6000 (Median: INR 2400; IQR: INR 2000-3500). (Table 2)

Table 2. Conference registration fees as per level of training (n = 31).

	Range, low	Range, high	Median	IQR	p-value
Pre-Conference Workshop / CME (n = 18)	500	2950	1240	875, 1500	-
Conference Registration Fees					
Undergraduates (n = 20)	0	4000	1500	950, 2125	-

	Range, low	Range, high	Median	IQR	p-value
Postgraduates, Member (n = 13)	1000	6000	2900	2500, 3600	0.931*
Postgraduates, Non-member (n = 31)	800	8000	3000	2180, 3806	
Faculty/Others, Member (n = 25)	1500	8850	3500	3000, 5000	0.212*
Faculty/Others, Non-member (n = 31)	1000	10620	4500	3500, 6000	
Foreign Delegates (n = 9)	1500	25000	12500	12000, 16600	-
Accompanying Delegates (n = 21)	500	6000	2400	2000, 3500	-

* *Independent samples t-test*

13 out of 31 (41.9%) conferences offered discounted registration fees for postgraduate residents who are members of the affiliated society while 25 out of 31 (80.6%) conferences had discounted fees for faculty/graduated professionals with membership. Registration fees for postgraduate residents ranged from INR 1000 to INR 6000 (Median: INR 2900; IQR: INR 2500-3600) for members and INR 800 to INR 8000 (Median: INR 3000; IQR: INR 2180-3806) for non-members. Registration fees for faculty/graduated professional ranged from INR 1500 to INR 8850 (Median: INR 3500; IQR: INR 3000-5000) for members and INR 1000 to INR 10620 (Median: INR 4500; IQR: INR 3500-6000) for non-members. Independent samples t-test showed no significant difference in registration fees for membership status in postgraduate residents ($p = 0.931$) and faculty/graduated professionals ($p = 0.212$). (Table 2)

DISCUSSION

The study finds that Tamil Nadu hosted maximum conferences between April 2023 – March 2024, which could be because of the high importance given to public health traditionally in the state. (9) None of the conferences were held in the North Eastern Region (except Assam), islands of Andaman, Nicobar, and Lakshadweep, and newly formed union territories of Jammu & Kashmir and Ladakh. Conference participation entails significant financial burden, most notably costs involved in travelling long distance and accommodation. (2,6) As such, participants, especially postgraduate residents, from these regions may be dissuaded to participate in conferences for the fear of financial constraints and limit their learning and networking opportunities compared to peers from rest of the country. Geographical, and subsequent financial, constraints are further

magnified by the findings that only two conferences offered virtual or hybrid component and none of the conferences had scholarship/financial support/travel grants for postgraduate residents, which otherwise facilitate participation.(2) This limits participation of students from not only abovementioned regions, but also from remote and rural regions, and poor socio-economic backgrounds. Limited participation also means underrepresentation of students and researchers from these backgrounds at conferences and subsequently limited role in decision making and advocacy.

Conference registration fees pose the first, and often major, financial barrier to attending conferences, especially for postgraduate residents and students. (2) Academic medical conferences in India are often co-hosted by an institution and a professional society. The conferences often offer discounted registration fees for society members in lieu of attracting increasing number of memberships. Our study found that there was no significant difference in conference registration fees between members and non-members for postgraduate residents and faculty. If costs for society membership were included as a component of conference registration fees, the true costs will massively inflate the figures here, thus further underestimating true financial burden. This raises pertinent questions on the benefits these memberships provide in terms of financial protection. There are other benefits of society memberships like waiver/reduction of article processing charge for journals and learning opportunities for members only, that are beyond the scope of our study objectives. But many postgraduate residents join these societies purely to reduce long-term financial burden in academic opportunities.

Conference registration fees does not include associated costs of attending an academic conference such as travel, accommodation, and food costs. Participation in pre-conference workshops is charged separately. Many participants also bear costs of printing flex posters in poster presentations when most conferences stick to physical posters rather than digital posters. Postgraduate residents bear the costs of attending a conference often on their own, on low or nil stipend that hugely varies across states, and no financial support from parent institution. (7) Scholarship support or travel grant, not offered in any conference in this case, provide an opportunity, however small, to reduce financial barriers. The COVID-19 pandemic induced a transition of conferences to wholly or partly virtual events that reduced financial barriers and increased access to participation. However, academic community quickly regressed to in-person events, as in this case, that once again exacerbated the financial barriers.

Diversity, equity, and inclusion form the core of community medicine and must equally be represented in top academic forums and platforms. It is unarguable that organizing conferences entail substantial costs such as venue, logistics, catering, AV equipment, awards, and speaker costs. However, conference organizers and professional societies must explore ways to reduce financial barriers to participation, such as offering virtual components and scholarship/travel grants for postgraduate residents.

CONCLUSION

Conference participation, out of mandate or interests, entail heavy financial burden in terms of registration fees, travel, and lodging costs. Financial or geographical barriers to participation limit equitable representation of attendees from diverse background. This study finds lack of financial support and contentious benefits of society memberships for participation at conferences. Resource-constrained regions such as North East India, islands, and hilly states were also underrepresented. We recommend facilitating

financial support in form of scholarships or travel grants, hosting virtual or hybrid conferences, and diversifying host states.

LIMITATIONS

Conference registration fees for members of professional societies did not factor costs for society membership which people often join in lieu of reduced conference fees, thus seriously inflating the actual figures for society members. Late and on-site registration fees were not included for analysis, as also non-registration associated costs of attending a conference such as travel, accommodation, and food costs. Hence, actual costs of attending an academic medical conference in community medicine is significantly higher than represented here. Absence of qualitative data representing residents' perception of this issue also limits the scope of our study. While the authors have attempted a comprehensive review of conferences included in the study, a few conferences may have been missed due to low marketing or late awareness. This does not compromise the representativeness of study outcomes.

AUTHORS CONTRIBUTION

ALL AUTHORS HAVE CONTRIBUTED EQUALLY.

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Nil

CONFLICT OF INTEREST

There are no conflicts of interest.

DECLARATION OF GENERATIVE AI AND AI ASSISTED TECHNOLOGIES IN THE WRITING PROCESS

The authors haven't used any generative AI/AI assisted technologies in the writing process

REFERENCES

1. Ramakrishnan S, Gupta S. The impact of COVID-19 on the conduct of medical conferences: A paradigm shift Highlights on Pediatric Cardiac Society of India (PCSI) 2021. *Ann Pediatr Card.* 2022; 1. Available from: https://journals.lww.com/10.4103/apc.apc_61_22
2. Velin L, Lartigue JW, Johnson SA, Zorigtbaatar A, Kanmounye US, Truche P, et al. Conference equity in global health: a systematic review of factors

- impacting LMIC representation at global health conferences. *BMJ Glob Health*. 2021; 6(1):e003455. Available from: <https://gh.bmj.com/lookup/doi/10.1136/bmjgh-2020-003455>
3. Mishra S. Do medical conferences have a role to play? Sharpen the saw. *Indian Heart J*. 2016; 68(2):111–3. Available from: <https://linkinghub.elsevier.com/retrieve/pii/S0019483216001127>.
 4. National Medical Commission: Guidelines for Competency Based Postgraduate Training Programme for MD in Community Medicine. 2019. Available from: <https://www.nmc.org.in/wp-content/uploads/2019/09/MD-Community-Medicine.pdf>. Accessed 21 March 2024.
 5. National Medical Commission: Postgraduate Medical Education Regulations-2023: Postgraduate Medical Education Board. 2023. Available from: <https://www.nmc.org.in/e-gazette/e-gazette-nmc/>. Accessed 21 March 2024
 6. Honavar S. Physical or virtual? Or is there a middle path? - Reimagining medical conferences in the COVID-19 era. *Indian J Ophthalmol*. 2021; 69(3):475. Available from: https://journals.lww.com/ijo/Fulltext/2021/03000/Physical_or_virtual__Or_is_there_a_middle_path___.1.aspx
 7. Education Times: PG medical students suffer due to disparity in stipends. 2023. Available from: <https://www.educationtimes.com/article/campus-beat-college-life/99733626/pg-medical-students-suffer-due-to-disparity-in-stipends>. Accessed 21 March 2024.
 8. Klöwer M, Hopkins D, Allen M, Higham J. An analysis of ways to decarbonize conference travel after COVID-19. *Nature*. 2020; 583(7816):356–9. Available from: <https://www.nature.com/articles/d41586-020-02057-2>
 9. Parthasarathi R, Sinha S. Towards a better health care delivery system: The Tamil Nadu model. *Indian J Community Med*. 2016; 41(4):302. Available from: <http://www.ijcm.org.in/text.asp?2016/41/4/302/193344>