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An Evaluation of Knowledge and Interest of Junior Residents in Telepsychiatry: A Nationwide Survey

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Abstract: ***Background: Telepsychiatry has emerged as an important modality for delivering mental healthcare services, particularly in resource-limited and geographically inaccessible areas. Despite increasing utilization of telepsychiatry in India, limited evidence exists regarding the knowledge, clinical exposure, and training needs of psychiatry residents. Aim: To assess the knowledge and interest in telepsychiatry among psychiatry residents across India. Methods: A cross-sectional online survey was conducted among psychiatry residents pursuing MD, DNB, and Diploma courses across India. A semi-structured Knowledge, Clinical Experience and Competency, Interest, and Pedagogic Training (KCIP) questionnaire was administered using Google Forms. Data were analyzed using descriptive statistics. Results: A total of 150 psychiatry residents participated in the study. Most participants (92%) considered telepsychiatry essential for mental healthcare delivery, and 80% preferred video consultations over other modalities. Awareness regarding telepsychiatry operational guidelines was observed in 56% of respondents. Only 41% reported adequate clinical exposure, while 34.7% reported sufficient academic exposure to telepsychiatry during residency. Nearly half of the respondents (49%) felt confident practicing telepsychiatry independently after residency. Importantly, 92% expressed the need for formal telepsychiatry training during postgraduate education. Conclusion: Psychiatry residents demonstrate positive attitudes toward telepsychiatry; however, limited academic and clinical exposure highlights the need for structured telepsychiatry training within residency curricula.***

Keywords: Telepsychiatry; Junior residents; Telemedicine; Knowledge Assessment; Digital Psychiatry; Psychiatry Training

1. Introduction

According to the World Health Organization (WHO), mental health is an essential part of our overall health and is much more than just the absence of mental disorders. It includes the well-being of a person, the prevention of mental disorders, treatment and rehabilitation. The burden of mental disorders is alarmingly increasing all across the globe and is associated with stigma, disability and distress, morbidity and mortality. Even with this increasing burden there is still a lack of health services especially in the rural states. The lack of access of health facilities often makes patients travel long distances to seek mental health care services (1)

Telepsychiatry, a term generally used to describe psychiatric services delivered via clinical video telehealth (CVT), is essential to bridge the gap between the need and the availability of the mental health care facilities. (2). According to WHO, telemedicine is "the delivery of health care services, where distance is a critical factor, by all health care professionals using information and communication technologies for the exchange of valid information for diagnosis, treatment and prevention of disease and injuries, research and evaluation, and for the continuing education of health care providers, all in the interests of advancing the health of individuals and their communities."(3)

However, many psychiatrists are not yet comfortable to deliver care comfortably through telepsychiatry in comparison to face-to-face care. The literature shows reluctance in telepsychiatry delivery is mostly from the physicians' side rather than the patient. (1) The World Mental Health Report mentions that about one in every eight people in the world is found to live with a mental disorder. (4)

The growing demand for mental health services highlights the need to train junior psychiatry residents, who will play a key role in the future mental healthcare workforce, in telepsychiatry and technology-based service delivery. Assessing their knowledge of the legalities is essential to ensure they are equipped to provide accessible, efficient, and high-quality psychiatric care through telepsychiatry in the future.

2. Objectives

1) To assess the knowledge and interest of psychiatric residents in telepsychiatry
2) To assess the need for training in telepsychiatry

3. Materials & Methods:

Sampling: Convenience sampling

Study design: Cross-sectional study

Study setting: Multicentric national survey

Study population: Junior residents doing their MD/DNB/Diploma in psychiatry in India

Inclusion criteria: Junior Residents doing their post-graduation in Psychiatry in India including MD, DNB & Diploma in Psychiatry

Exclusion criteria: Residents who did not give consent for the study.

Study duration: September 2023-October 2023.

Statistical Analysis

KCIP -questionnaire was iteratively developed and some questions were taken from a pre-tested semi-structure questionnaire "Telepsychiatry questionnaire" (*Cruz C, Orchard K, Shoemaker EZ, Hilty DM,2021*) after sending an email for permission of adaptation to the authors. Google form was used for the online survey. (5)

Pilot study was conducted among 20 Psychiatry Senior Residents in NIMHANS. Questionnaire was revised after the feedback from the pilot study.

Around 1000 Psychiatric Junior residents all over India were sent Google links through email to the HODs of psychiatry department and through social media groups (WhatsApp, Telegram, Facebook) and individual texts.

Data was collected over 2 months. Reminder messages were sent through WhatsApp messages (considering higher response rates from this medium) weekly over first 1 month and on alternate days over the last month.

4. Results

Data processing and analysis: 1123 Psychiatry seats were shown to be available for the year 2022-2023 as per the National Medical Commission. However exact number of seats filled were not known. There were 312 email addresses available of Head of the Department /Psychiatry Department offices of colleges which were offering seats MD, DNB and Diploma courses in Psychiatry all over India. The google based survey link was sent to all along with details of the researchers, aim and purpose of the study and reassurance on privacy of the data collected.162 emails bounced back. The response rate was 15%, with 150 participants responding. The responses were then analysed. The data collected was first coded, transferred on to a master chart and then decoded from which simple as well as correlation tables were prepared, analysed and statistically evaluated. Data entry and descriptive statistical analysis were done using SPSS software version 29. Descriptive statistical analysis was done according of the nature of the variables. The frequency, percentages, mean, and standard deviation were calculated, and Appropriate graphs and tables were used to show the results. All the statistical tests were evaluated and considered as significant at 95% confidence interval level.

Ethical consideration: Ethics approval from the institute ethics committee of NIMHANS was sought prior to beginning the study. Confidentiality of the participants was maintained and digital consent was taken at the beginning of the survey.

5. Results

Table 1: Sociodemographic profile of study participants

Socio-Demographic Details	N (%)
1.Age (Mean and SD)	27.87(3.18)
2.Gender	
• **Female**	88(58.7)
• **Male**	62(41.3)
3. Course	
• **MD**	139(92.7)
• **DNB**	9(6.0)
• **Diploma in Psychiatry**	2(1.3)
4. Year of Residency	
• **First**	48(32)
• **Second**	53(35.3)
• **Third**	49(32.7)
5.College	
• **Central Government**	37(24.7)
• **State Government**	58(38.7)
• **Private**	55(36.7)
6. Previous exposure to Telepsychiatry	
• **Yes**	33(22.0)
• **Less than 4 hours**	24(57.1)
• **More than 4 hours**	18(42.9)
• **No**	117(78.0)

Table 1 shows sociodemographic profile of study participants. The study included 150 psychiatry residents with a mean age of 27.87 ± 3.18 years. The majority (58.7%) of participants were females, while the rest (41.3%) were males. A higher percentage (92.7%) of participants were MD Psychiatry students, 6% were DNB students, and 1.3% were diploma students. Participants were equally distributed according to year of residency, such that 33.3%, 33.3%, and 33.4% were first-year, second-year, and third-year residents, respectively. In terms of college affiliation, 38.7%, 36.7%, and 24.7% of participants attended state government colleges, private colleges, and central government institutes, respectively. A lower percentage (22%) of participants were previously acquainted with telepsychiatry, of which 57.1% had less than four hours of experience.

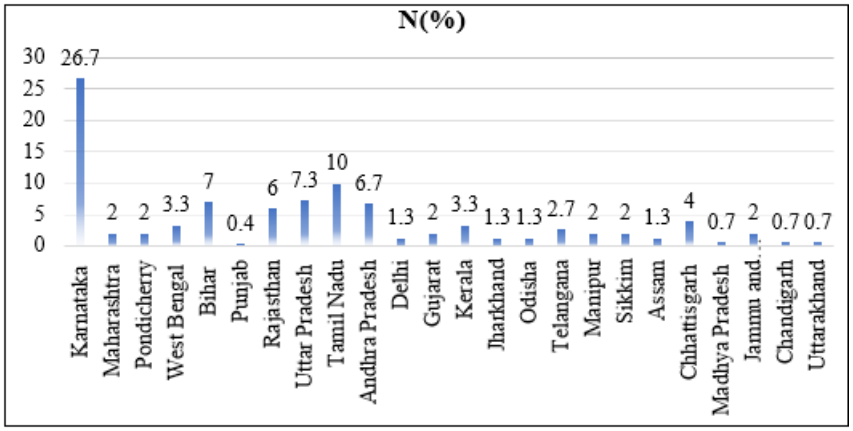

Figure 1: Responses from different states

The highest number of responses were given by the residents in Karnataka (26.7%) followed by Tamil Nadu (10%) and Uttar Pradesh (7.3%). The least no. of Responses were noted from Punjab (0.4%), Madhya Pradesh (0.7%), Chandigarh (0.7%) and Uttarakhand(0.7%). No responses were noted from – Arunachal Pradesh, Goa, Haryana, Himachal Pradesh, Meghalaya, Mizoram, Nagaland, Tripura, Andaman and Nicobar Islands, Daman and Diu, Ladakh, And Lakshadweep.

Knowledge

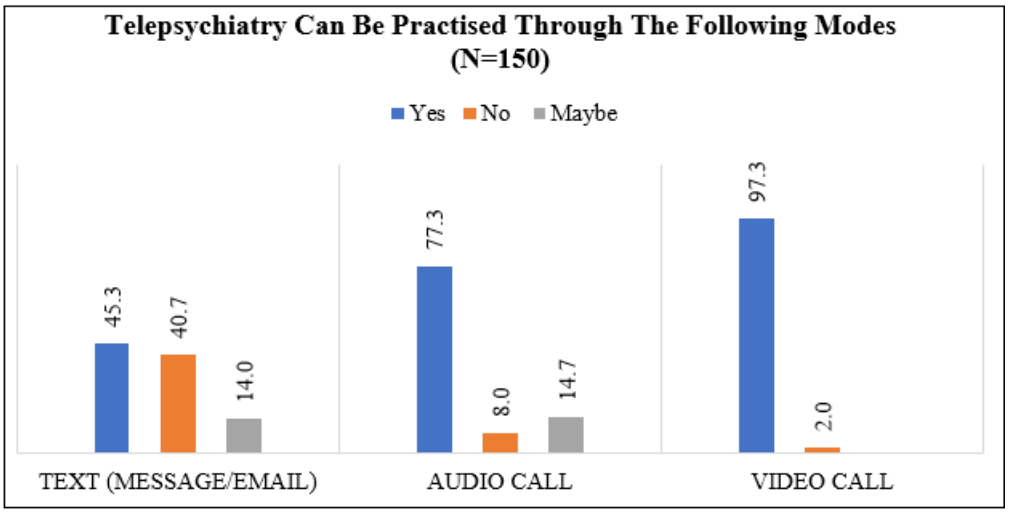

Figure 2: Responses to different modes of Telepsychiatry

As shown in figure 2, it was found that most of the participants agreed that video calling (97.3%) and voice calling (77.3%) were valid forms of telepsychiatry practice. On the other hand, only 45.3% agreed that text message or e-mail correspondence could be considered valid forms of telepsychiatry practice, whereas 40.7% of the participants disagreed that text messages and e-mail communications were forms of telepsychiatry practice. Very few participants disagreed that video calling (2%) and voice calling (8%) were forms of telepsychiatry practice. The findings suggest that the psychiatry residents have greater familiarity with synchronous modes of communication, especially video consultations.

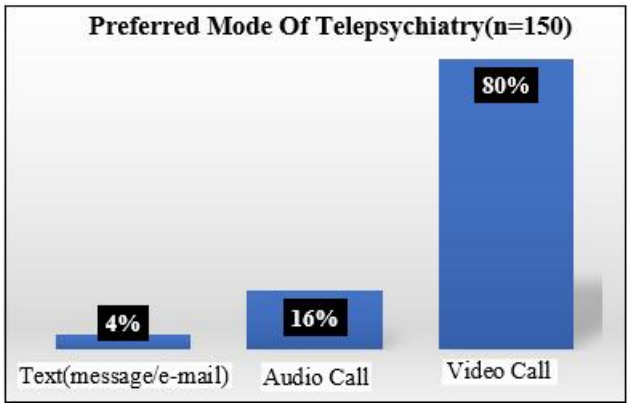

Figure 3: Responses to preferred Mode of Telepsychiatry

In response to preferred mode of telepsychiatry as shown in figure 3, most psychiatry residents chose video calls (80%) as the modality of telepsychiatry practice, followed by audio calls (16%). Text or email consultations were chosen by very few respondents (4%). This shows a clear preference for video consultations on the part of residents, possibly because it allows for better communication and non-verbal observation, as well as building therapeutic alliance. Although audio consultations were not the preferred choice of residents, they were still considered to be acceptable to some extent, while text or email consultations were seen as the least desirable modality.

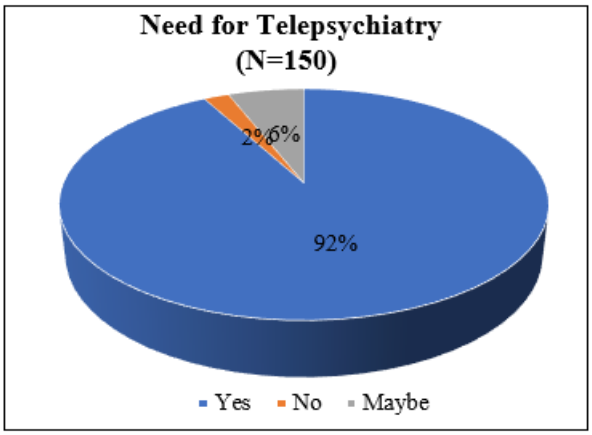

Figure 4: Responses to felt need of telepsychiatry in delivering mental health care

Findings in figure 4 indicate that there is a compelling call for remote psychiatric care, where 92% of the respondents recognized the necessity of telepsychiatry. This overwhelming response indicates a high level of readiness for technology-based solutions, with little resistance (2%) and ambiguity (6%) on the part of the surveyed population.

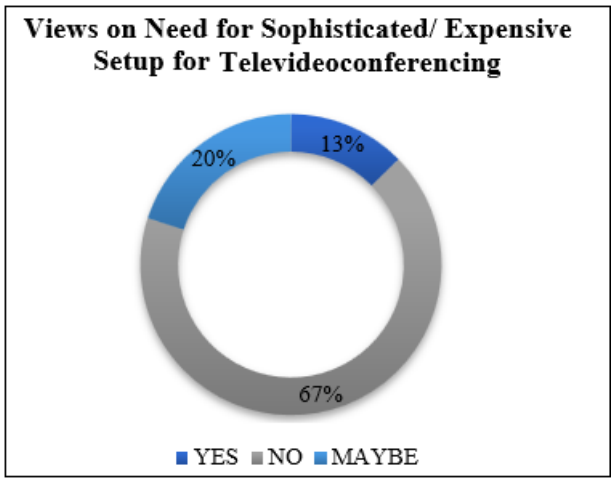

Figure 5: Responses to need for sophisticated/ expensive setup for Tele videoconferencing

In responses regarding the issue of technical obstacles, as shown in figure 5, an overwhelming 67% feel that elaborate or pricey equipment is not necessary for tele-videoconferencing. On the other hand, 13% think that costs and technicality are pre-requisites, while 20% have no idea, which implies that the general population considers telepsychiatry highly accessible.

6. Discussion

The findings of the survey reveal that 56% of the participants are interested in Telepsychiatry however only 34.7% were reported to have academic exposure to clinical aspects of Telepsychiatry. 49% participants are confident to practice telepsychiatry after post-graduation. 92% of the participants felt that there should be a need in training in residency in the field of telepsychiatry.

A survey done among Fellows and Psychiatry Residents in USA in revealed that 46% of the participants had no prior exposure to telepsychiatry in a clinical setting. Conversely, 11% of the respondents reported having one hour of experience, while 13% had between two to five hours of experience. In terms of their level of interest, 34% of the participants expressed a high level of interest, another 34% indicated a moderate level of interest, 21% were undecided, 8% were uninterested, and 3% displayed a strong disinterest. (5)

A comparison of the concerns regarding telepsychiatry between psychiatrists with 0-5 hours of experience and those with 6-20+ hours revealed significant differences in various areas. For instance, the concern about the inability to conduct a physical examination was reported by 59.13% of the psychiatrists in the 0-5 hour group, compared to only 41.95% in the 6-20+ hour group. Similarly, concerns about liability risks, poor internet connection, and cultural acceptance were more prevalent among the psychiatrists in the 0-5 hour group compared to their counterparts in the 6-20+ hour group. (5)

A study by *Crawford et al. 2016* (6) done in Toronto, Canada has successfully identified the specific competencies that are necessary for the effective practice of telepsychiatry. (6)

According to an Indian survey, conducted in 2020 by *Basavarajappa, C et al* (7) insights pertaining to the existing telepsychiatry practice in India can be obtained through the analysis of data collected via an online survey administered among psychiatrists. While majority (57.65%) had used audio consultations, our study shows preference to video consultations (80%). This may show the change in the trend as the availability of technology changes. The majority of the practicing psychiatrists were comfortable to some extent in providing first consultation with (40.5%) or without (44%) prescribing medications, and comfortable to a large extent providing follow-up with (46.42%) prescribing medications and fully comfortable without (30.84%) prescribing medications. In our study we found that only 5% of the respondents preferred to provide first consultation and 67% preferred providing follow-up consultation using telepsychiatry.

7. Conclusion & Recommendations

8. Telepsychiatry is increasingly recognized as an **essential** component of mental healthcare delivery in India. Psychiatry residents demonstrate considerable interest and positive attitudes toward telepsychiatry. However, gaps persist in academic teaching, clinical exposure, awareness of operational guidelines, and confidence in independent practice.

The findings of this study highlight the urgent need for structured telepsychiatry training within postgraduate psychiatry residency programs. Early and systematic exposure to telepsychiatry may enhance competency, improve confidence, and prepare future psychiatrists to effectively deliver mental healthcare services through digital platforms.

9. Strengths and Limitations

Strengths:
- First nationwide assessment of Indian psychiatry residents ' knowledge and training needs in telepsychiatry.
- Representation from 24 states, offering broad insight into t raining variations.

Limitations:
- Low response rate and small sample limit generalizability.
- The questionnaire was self-designed and not validated psy chometrically.

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