

Geriatric Telepsychiatry: Promoting Access to Geriatric Mental Health Care Beyond the Physical Barriers

Palanimuthu Thangaraju Sivakumar¹, Shiva Shanker Reddy Mukku¹, Nilamadhab Kar², Narayana Manjunatha³, Vivek Haridas Phutane⁴, Preeti Sinha¹, Channaveerachari Naveen Kumar³, Suresh Bada Math³

ABSTRACT

Psychiatric illnesses are an important contributor of morbidity and mortality in older adults. There is increase in older adults with psychiatric disorders paralleling their growth in absolute numbers. This leads to challenges in mental health care and service delivery. Several barriers that exists in our community hinder older adults from receiving mental health care. Additionally, lack of adequate human resources in geriatric mental health care compounds the problem. Telemedicine, though not new in other fields of medicine, is relatively new in the practice of psychiatry in India. This is probably due to lack of clear guidelines and regulations regarding the same in India. There is a recent increase in teleconsultations in India similar to other developed countries due to ongoing COVID-19 pandemic. The recent telepsychiatry operational guidelines have made telepsychiatry a legitimate and official practice in India. Challenges specific to older adults in the form of low digital literacy, sensory issues, and cognitive impairment can be overcome by adopting telepsychiatry services in coming years. Concerns related to security and safety of telepsychiatry require further evaluation.

Keywords: Telepsychiatry, older adults, mental health care, operational guidelines

An increase in the older adult population is a global phenomenon occurring more rapidly in low- and middle-income countries like India. The proportion of older adults (age 60 years and above) in India has increased from 5.2% in 1950 to 11.6% (103 million) in 2011.¹ It is expected to grow to 19% (340 million) in 2050.² An increase in the prevalence and care requirements of geriatric mental health problems needs urgent attention. Trained human

resources available for geriatric mental health care are grossly inadequate in India. Implementation of innovations such as geriatric telepsychiatry can help to address this challenge. This article attempts to summarize the issues related to geriatric telepsychiatry in the Indian and global context.

Public Health Importance of Mental Health Problems in Older Adults

There is high prevalence of mental health problems such as depression, anxiety, dementia, substance abuse, and suicidal risk, with significant morbidity and risk for mortality in older adults. Several epidemiological studies,^{3,4} National Mental Health Survey (NMHS), 2016,⁵ and Dementia India Report, 2010,⁶ have reported the prevalence, treatment gap, and burden of geriatric mental health disorders. Of older adults, 10% to 15% have mental disorders (including dementia), and an additional 5% to 10% have sub-syndromal symptoms, with an estimated treatment gap of nearly 90%. This has adverse consequences on the physical health, life expectancy, quality of life, family, and finances with significant public health implications.

Challenges in Geriatric Mental Health Care Services

Statutory provisions from the “Mental Health Care Act (MHCA), 2017” and “The Maintenance and Welfare of Parents and Senior Citizens Act, 2007” mandate provision of geriatric mental health services. However, the majority of older adults reside in rural areas (70%), and psychiatry

services are still limited to urban metros and cities. Low awareness and priority for mental health, scarcity of trained human resources, lack of age-friendly transport and health systems, stigma, financial constraints, and declining support from the family caregivers are important challenges related to geriatric mental health care.⁷⁻⁹

Need for Geriatric Telepsychiatry

Specialized human resources for geriatric mental health care are inadequate, even in developed countries. India has a wider gap in the availability of general as well as geriatric mental health professionals that is difficult to be filled soon.^{10,11} Public mental health initiatives like the District Mental Health Program and an increase in the number of medical college hospitals^{12,13} are helpful to address this treatment gap. Still, they are inadequate to meet the need for specialized geriatric mental health services.¹⁴ Geriatric telepsychiatry provides the opportunity for extending the geriatric mental health services to those who are difficult to reach in-person as well as for improving the continuity of care in general.

Geriatric Telepsychiatry in the Global Context

General and geriatric telepsychiatry is relatively well established in developed countries. Several studies have looked at the feasibility, acceptability, effectiveness, and comparability of geriatric telepsychiatry to traditional in-person service. A retrospective study on 100 telepsychiatry consultations between 2002 and

2009 from Canada reported a high level of satisfaction and usefulness among specialists and patients.¹⁵ Another retrospective study on 134 community-based telepsychiatry consultations from Australia reported its use as an adjunct to an in-person consultation.¹⁶ A recent systematic review of studies on geriatric telepsychiatry for diagnostic and cognitive assessments reported its applicability and acceptance despite barriers.¹⁷

Experience of Geriatric Telepsychiatry in the United Kingdom and Australia

Most of the initial assessments are done through in-person consultations at the clinic or home, with many later interactions happening over the phone. Recent times have seen an increase in the usage of videoconference-based consultation. Although the use of newer technologies by older people is comparatively lesser than the younger generation, most of them are able to use mobile phones. The older adults who live in care and nursing homes receive help from the staff to use modern gadgets to communicate with their family and clinicians. The use of telepsychiatry has gone up in the context of COVID-19-related restrictions in personal meetings for older adults. It has been observed that geriatric telepsychiatry is feasible and reliable. Common examples include remote ward reviews and nursing home consultation, which can be adequately interactive. Telepsychiatry is also used for assessments, interventions, and monitoring. Assessments for depression, cognitive testing, especially memory assessments, dementia diagnosis through telephone and video conference have been feasible and comparable to face-to-face assessment and intervention.^{18,19} Interventions can include counseling, psychoeducation, cognitive-behavioral and other psychotherapies, group therapy, and occupational therapy. Extending the use of telepsychiatry is seen in research for data collection and follow-ups. There are many safe, interactive video-calling options through the National Health Service in the UK, which is being used by the general practitioners (GPs), consultants, and nurses. There are many positive points of practice of tele-

psychiatry for older adults. It connects clinicians and patients straight away, without necessitating the travel, which avoids unnecessary risks for the elderly with mobility or frailty issues. Multidisciplinary professionals and family can collaborate to overcome physical barriers. Telepsychiatry encourages clinician-patient relationships through the use of “virtual space” in the consultation.²⁰ Potential for reduction of health care costs in telepsychiatry requires further evaluation.¹⁷ However, there are many concerns as well with telepsychiatry practice. Primarily, the limitations in physical examination and compromise in the “being there” element, and the ability of older adults to use modern technologies and ensuring privacy during the consultation are essential concerns.²¹ There are also medical insurance and medicolegal issues. Considering recent experiences, health care for the elderly may go toward a hybrid model. Traditional in-person consultation and telepsychiatry (phone/online) combination (a hybrid model) will be more frequently practiced reaping the benefit from both models of care. This will be especially beneficial for older frail persons.²⁰

Geriatric telepsychiatry has been utilized for many years for service provision to older people in rural and regional Australia, given the large area managed by the publically funded Older Persons Mental Health Services. The systematic review about telepsychiatry concluded that it could be an effective and reasonable alternative in achieving similar health outcomes as compared to face-to-face consultations, especially when face-to-face consultations were not possible.^{22,23} The Federal Government of Australia provided a rebate for the Medicare Benefits Schedule for geriatric telepsychiatry to encourage its use.

Telepsychiatry is used effectively to conduct family meetings where family members live in distant places. Also, it is utilized to hold multidisciplinary meetings with GPs, specialists (neurologists, cardiologists, endocrinologists, geriatricians, etc.), and mental health professionals (e.g., psychologists, social workers, occupational therapists, etc.). Geriatric telepsychiatry helps in providing the coordinated, practical, and best

possible management to older people in the current COVID-19 scenario.

It is essential to understand the local and cultural factors in considering telepsychiatry in older people. In Australia, whenever possible, it is encouraged to have a locally-based health care professional present during the telepsychiatry session. This helps in the psychiatric assessment as well as the immediate provision of a management plan.²⁴ It is helpful to provide training to locally-based health care professionals regarding the use of telehealth technology. The Royal Australasian College of Physicians (RACP) developed the “The RACP Introduction to Telehealth” online training module for health care professionals to obtain skills required to use telehealth effectively.

Geriatric Telepsychiatry in the Indian Context

Telemedicine and telepsychiatry have been tried in India for many decades, however, with limited impact. The past decade has witnessed a rapid growth of digital and telecommunication services, which has given a flip to telemedicine. Telepsychiatry services, including geriatric telepsychiatry, are increasingly being used in institutions like the National Institute of Mental Health and Neurosciences (NIMHANS). Telepsychiatry services were provided directly to patients and caregivers, outpatients at district hospitals, and inmates of institutional care such as prisons and destitute homes. The feasibility, utility, and acceptability of telepsychiatry services has been demonstrated in recent studies.²⁵⁻²⁷ Psychiatry, neurology, and neurosurgery specialists provided tele-neuropsychiatry consultation through Specialist-Doctor-Patient model as part of the state-run program for the two central prisons from July 1, 2014, to June 30, 2016. A retrospective file review was done of the tele-neuropsychiatry case records at Tele-Medicine Centre, Located at Tertiary Neuro Psychiatric centre of South India. A total of 53 patients were provided tele-neuropsychiatric consultation over 2-year period. Of these, 48 (90.6%) Telepsychiatry services have been used to provide collaborative care with primary care physicians for the care of persons with mental illness, including older adults.^{28,29}

A telepsychiatric after care (TAC) clinic at Telemedicine Centre of NIMHANS, Bengaluru, India, has been successfully conducting video consultations for follow-ups of psychiatric patients, including the geriatric population from the year 2017. A file review of 669 video consultations provided to 213 patients in the first three years (2017–2019) from telemedicine center of a tertiary care academic hospital reported the socio-demography, clinical profile, tele aftercare consultations details and outcome. This first large-scale study reports TAC as a useful alternative method that can supplement in-person follow-up.³⁰

In view of limitations of physical examination in teleconsultations, Telemedicine Centre, NIMHANS, Bengaluru, India, designed a clinician-centric concept of “virtual physical examination” (VPE) exclusively for video consultations where a physician can conduct inspection section of systemic physical examination reasonably well.^{31,32} The validation exercise of this VPE is undergoing at this center. This validation could be planned exclusively for geriatric psychiatry in future studies.

Experience of Geriatric Telepsychiatry at NIMHANS

Geriatric clinic and services at NIMHANS have used telemedicine to promote follow-up and continuity of care for persons with dementia and other psychiatric disorders in older adults. This has enabled periodic review and management of patients from long distances across the country. The experience of conducting videoconference-based follow-up consultations for 30 older adults demonstrates the feasibility of this model in the Indian setting (Mukku et al., 2020 under review). The presence of family caregivers facilitated the effective implementation of telepsychiatry services, even for those with cognitive impairment. These consultations were implemented using videoconference platforms after written informed consent from the patient or caregivers (if the patient did not have the capacity to consent). The telemedicine unit coordinated the administrative aspects and training or orientation of users for the videoconference platform. However, geriatric telepsychiatry services were used only for the follow-up consultations after detailed in-person evaluation.

The prescriptions were sent to the patients or their family caregivers by email or smartphone applications like WhatsApp. However, this service was used selectively in a limited number of patients in view of the lack of systematic guidelines and regulatory approval until recently.

In addition to this, geriatric telepsychiatry consultations were done between psychiatrists and social workers who did home or institutional visits.

The development of a dedicated electronic record system (GERISOFT) facilitated telepsychiatry consultations without dependence on the physical medical records. Integrating secure asynchronous transfer of clinical details and investigation results to electronic records will be helpful in geriatric telepsychiatry.

Geriatric telepsychiatry consultations were also provided for collaborative care management of patients with Alzheimer's dementia by primary care physicians as part of a structured online training program. After initial training for evaluation and management of Alzheimer's dementia, primary care physicians presented the clinical details of patients with dementia to an expert geriatric psychiatrist. The primary care physicians continued the evaluation and management of the patient based on the guidance from the expert.

Group intervention for caregivers of persons with dementia play a vital role in the management of dementia for promoting the understanding of the diagnosis and the management of behavioral and psychological symptoms. In view of the difficulty in the physical participation of many caregivers due to logistic constraints, online group intervention through video conference was initiated. This received an excellent response from the caregivers. Systematic development of the module for online support group intervention for caregivers of persons with dementia has been undertaken as part of an ongoing doctoral research program.

Telemedicine and Telepsychiatry Guidelines—a Paradigm Shift

The Board of Governors of Medical Council of India released the telemedicine practice guidelines prepared in partnership

with the National Institute for Transforming India (NITI) Aayog on March 25, 2020.³³ This has given the much-awaited regulatory approval and framework for the telemedicine practice in India.

The recently released *Operational Guidelines on Telepsychiatry* by the NIMHANS, Bengaluru, India, in association with the Indian Psychiatric Society and Telemedicine Society of India, has contributed to a paradigm shift in the practice of telepsychiatry.

The guidelines have classified teleconsultation based on the mode of communication as video-based, audio-based, and text-based. The consultations can have synchronous (direct interaction) or asynchronous (e.g., E-mail) components. Depending on the purpose of consultation, it is classified as the first contact consultation and follow-up consultation. Teleconsultation is categorized depending on the individuals involved as a patient to specialist/registered medical practitioner (RMP), caregiver to specialist/RMP, specialist to RMP, and health worker to specialist/RMP.³³

The context of the COVID-19 pandemic has necessitated a rapid expansion of the general and geriatric telepsychiatry services, including the urgent release of practice guidelines.

In view of excess risk for complications related to COVID-19 in older adults, routine in-person visits for health care were avoided by many patients and family members themselves. Mental health professionals also discouraged in-person visits for these patients and initiated the active use of telepsychiatry services to provide mental health care.

Special Issues in Geriatric Telepsychiatry

Many issues of geriatric telepsychiatry are common to that of telepsychiatry for general adults. These issues are highlighted in the relevant articles published as part of this supplement. In this section, we discuss a few issues that are more commonly associated with geriatric telepsychiatry services.

Sensory Impairment

Visual and hearing impairment are more commonly seen in older adults.

Geriatric telepsychiatry services require consideration of these special needs and enable inclusive services as much as possible. Support from a health worker or family caregiver and adaptation of the communication strategies and acoustic settings of the teleconsultation room to accommodate the unique needs of this population would be helpful. Given the hearing and visual challenges in the geriatric population, it is essential to utilize strategies to enhance the audio and video quality of telepsychiatry.³⁴

Cognitive Impairment

Older adults have a high prevalence of cognitive impairment, including dementia. Those diagnosed with other psychiatric illnesses such as depression and psychosis have increased risk for cognitive impairment. The ability for active participation in the teleconsultation may be influenced by cognitive status. There are potential advantages and disadvantages of telepsychiatry in this population. Older adults living alone with initial stages of cognitive impairment will have more challenges in seeking traditional in-person consultations. Some of them may either require additional support or may be unable to learn the process for telepsychiatry consultation independently. Geriatric telepsychiatry may also offer the opportunity to participate in cognitive assessment from the patient's natural environment that is likely to be less anxiety-provoking than traditional consultation rooms. Several studies have demonstrated the feasibility of online cognitive assessment as well as interventions for caregivers of persons with dementia.

Older Adults Living in Institutions

Older adults living in residential care institutions have increased vulnerability for mental health issues and have increased need for preventive, promotive as well as therapeutic mental health services. Despite this, many such institutions may not have provisions for mental health care services, and promoting geriatric telepsychiatry can be an effective strategy to address this need. This can also promote the cost-effectiveness of

these services. The feasibility of telemedicine-assisted dementia care residential services has also been demonstrated globally as well as in India.

Asynchronous Technology-Assisted Caregiver Intervention for Dementia

The World Health Organization has developed an i-support intervention for dementia caregivers. The feasibility and effectiveness of this intervention have been studied in India in collaboration with NIMHANS.³⁵ Video-based asynchronous interventions might have greater acceptability and utility than the text-based interventions in low- and middle-income countries like India.

Tele-Assisted Nonpharmacological Interventions

Nonpharmacological interventions such as psychotherapy and family therapy; dietary and lifestyle interventions such as yoga, physical exercise; and noninvasive brain stimulation (transcranial direct current stimulation), and long-term multi-domain interventions play an important role in the preventive, promotive, and adjuvant treatment of geriatric mental health conditions. Many of these interventions can be delivered as tele-assisted interventions for effective utilization in older adults having barriers to traditional in-person interventions.

Legal Issues

Many older adults with dementia have impaired cognitive capacity and high vulnerability for being victims of abuse. There are important legal issues related to dementia. Providers, as well as users, might have concerns about ensuring confidentiality and privacy in geriatric telepsychiatry consultations. The practice guidelines for telemedicine in India are more flexible and facilitate the users and providers to have a liberal choice of technologies without the restrictions for ensuring confidentiality and privacy. This has the advantage of promoting the use of telemedicine in the context of limited resources in India. But there is a need to improve the safety measures in

the future to ensure the successful implementation of telemedicine services in the long term. The restrictions in prescribing anti-dementia drugs in the first consult (on telemedicine) is a concern that needs to be addressed. However, they are allowed in a telepsychiatry follow-up consultation. The mandatory requirement of the presence of the patient during the first consult is essential in the practice guidelines for telepsychiatry; however, during a follow-up consultation patient may or may not be present for consultation. Every such follow-up consultation (in absentia of the patient) should be accompanied by a recently issued formal authorization letter by the patient. However, a psychiatrist can provide telepsychiatry follow-up consult without an authorization letter also if (a) a psychiatrist has documented the diagnosis of dementia, (b) the patient is in the "moderate" or "severe," stage (c) patient lacks the capacity to consent, and (d) psychiatrist is able to recognize the family member. This is left to the professional discretion of the psychiatrist. Many caregivers may have great difficulty in convincing the patient with dementia to cooperate for an initial evaluation in the hospital, and they may benefit from guidance through telepsychiatry. However, such patients can benefit from health care providers visiting the patient's home and switching to telepsychiatry consult assisted by a health care worker. Assessing and issuing medical certificates is another concern; however, operational guidelines state that one should not issue certificates during teleconsultation.

Conclusion

Effective utilization of geriatric telepsychiatry has significant advantages in promoting geriatric mental health care. There is a need for adequate training and promoting awareness among the multidisciplinary mental health professionals as well as the potential target users to ensure effective implementation of geriatric telepsychiatry. Given the multiple advantages of geriatric telepsychiatry, it is essential to encourage the locally-based health care professionals to initiate telepsychiatry services. A few concerns and challenges related to implementation require further evaluation by relevant

experts in the field to facilitate further adaptation of the guidelines as needed for the future.

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¹Dept. of Psychiatry, Geriatric Clinic and Services, National Institute of Mental Health and Neurosciences, Bengaluru, Karnataka, India. ²Black Country Healthcare NHS Foundation Trust, Wolverhampton, England, United Kingdom. ³Tele Medicine Centre, Dept. of Psychiatry, NIMHANS, Bengaluru, India. ⁴Goulburn Valley Area Mental Health Services (GVAMHS), Goulburn Valley Health, Shepparton and Melbourne Medical School, The University of Melbourne, Victoria, Australia.

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Address for correspondence: Palanimuthu Thangaraju Sivakumar, Dept. of Psychiatry, Geriatric Clinic and Services, National Institute of Mental Health and Neurosciences, Bengaluru, Karnataka 560029, India. E-mail: sivakumar.nimhans@gmail.com

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Telepsychiatry for Mental Health Service Delivery to Children and Adolescents

John Vijay Sagar Kommu¹, Eesha Sharma¹, Ujjwal Ramtekkar²

ABSTRACT

Children constitute 40% of India's population. Large number of children with psychiatric disorders and neurodevelopmental conditions are unable to access mental health services due to factors such as unavailability of these services in smaller urban and rural centres and lack of training for primary care providers. Given the relatively easy access to video conferencing technology, feasibility and acceptability of Telepsychiatry, there is an urgent need to invest resources and strengthen the use of Telepsychiatry for child and adolescent mental health training and serviced delivery. This viewpoint article discusses the need, scope, experiences and challenges related to use of Telepsychiatry in the area of child mental health.

Keywords: Adolescent, child, mental health, telemedicine, telepsychiatry

Telecommunications technology in the area of health is almost a century old, with the famous “Radio doctor” influencing people's health and health care way back in America of the 1920s!¹ However, it mostly lay dormant, an interesting application at best, with use limited to sharing diagnostic test and radiological images, for the better part of the 20th century. The internet

boom and rapid expansion of audio-video conferencing software triggered technological advancements in professional connectivity.² Also, shortage of trained health workforce and services infrastructure, especially in rural and remote areas, has mandated a need for telemedicine.³ Telemedicine is,

Delivery of health care services, where distance is a critical factor, by all health care professionals using information and communications technologies for the exchange of valid information for the diagnosis, treatment, and prevention of disease and injuries, research and evaluation, and the continuing education of health care workers, with the aim of advancing the health of individuals and communities.⁴

Terms “telepsychiatry” and “telemental health” refer to psychiatric and broader mental health services, respectively.⁵ Telepsychiatry for adults was first used at the Nebraska Psychiatry Centre in 1957 and in 1974 for children by the Mount Sinai School of Medicine, United States of America (USA).^{6,7} Telepsychiatry could have myriad objectives—direct teleconsultations versus training and capacity building; individual versus group service delivery; use by private practitioners for a small group of clients versus systemat-

ic use by primary, secondary, and tertiary health care systems; and emergency versus routine outpatient care—achieved utilizing either a synchronous (real-time) or an asynchronous (store and forward) format. Synchronous, two-way, interactive telecommunication format is commonly used, often in the form of video teleconferencing (VTC).

This article gives a perspective on the use of telepsychiatry in child and adolescent mental health care. We discuss the need, scope, operationalization issues, and challenges in telepsychiatry, as well as give an overview of national and international guidelines and current practice of child and adolescent telepsychiatry.

Need for Pediatric Telepsychiatry

Globally increased burden of child psychiatric disorders, shortage of child psychiatrists, inequitable distribution of existing resources, the “aging-out effect” of the workforce, and insufficient funding have led to increased use of telepsychiatry for children.^{8,9} Gloff et al.¹⁰ listed convenience, decreased cost, reduced stigma, and better coordination with multiple stakeholders as significant fac-