Remote Telepsychiatry Workforce: a Solution to Psychiatry's Workforce Issues

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Abstract

Purpose of Review The purpose of this paper is to demonstrate how a remote workforce may increase access to care while reducing physician burnout. We review workforce issues and organizational and individual obstacles for implementing a telepsychiatry workforce including administrative, logistical, and clinical considerations and offer resources for how to overcome barriers that may arise in implementing a remote workforce.

Recent Findings There is an increasingly unmet demand for mental health services and a shortage in psychiatrists. Burnout may be a key factor contributing to psychiatrists working less, pursuing less acute cases, and leading to worsened outcomes for patients and the psychiatrists themselves. Telepsychiatry provides comparable patient and provider satisfaction and equal outcomes when compared with face-to-face encounters.

Summary We provided 3 case examples to demonstrate psychiatrists demonstrating successful delivery of care in a range of clinic settings and workplace configurations while optimizing their quality of life and reducing their risk of burnout.

Keywords Remote workforce · Telepsychiatry · Workforce issues · Burnout · Telemedicine · Telemental health

Introduction

There is a growing need for mental healthcare in the USA, yet a profound shortage in psychiatric services. The demand for psychiatrists is rising due to a growing recognition of mental health needs driven by an aging population, the opioid epidemic, and legislative goals aimed at improving care and

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reducing healthcare costs through interventions and screening for mental health and substance use disorders in primary care [1]. The supply of psychiatrists however is shrinking with a 10% decline in the USA from 2003 to 2013, due to an aging workforce and a plateaued interest in medical residents going into psychiatry [2•-4]. Of note, the recent trend in medical residents going into psychiatry has been rising over the past few years from an historical average of 4% to 5–6% from 2015 to 2016, with the 2019 match data showing 5.9% though it remains to be seen if this will persist [5]. A study by the US Department of Health and Human Services in 2016 revealed a deficiency of between 6090 and 15,600 psychiatrists or 12–25% of the psychiatric workforce by 2025 [6••]. Up to 77% of the counties in the USA, 43 of 50 states report a severe shortage in psychiatric care [7, 8]. In addition to the decreasing number of psychiatrists per capita, workforce issues are myriad and include burnout, an over-representation of psychiatrists going into cash-only private practices, an under-representation of psychiatrists serving in certain settings and patient populations, a greater proportion of female residents when more females than males work part-time, and increasing difficulty recruiting psychiatrists [7, 9–13].

Telepsychiatry, in the form of live interactive video conferencing, provides an important part of the solution to this

Table 1 Recommendations for traveling remote workforce practitioner

Pre-Trip
•Share specific dates and locations of travel
•Coordinate time zone differences with home-based team
•Select specific accommodations/work sites
•Research privacy – will need separate room with door that can close if traveling with someone else
•Research bandwidth – at least 384 kb/s, review potential for fluctuations in bandwidth based on time of use (increased internet traffic at night), test call with hotel staff if possible
•Prepare backup connectivity options
•Options may include MiFi device, sim card at your destination, international calling plan with your mobile provider with hot spot, hourly office rentals depending on the city
•Access to hard line with international calling card

During Trip
•Upon arrival at destination, test connection with home-based team
•Verify privacy of room
•Set up professional background
•Travel disclosure with patients and clinics varies by situation

Post-Trip
•Post-trip summary and check-in with team
•Review of any problems, barriers or solutions encountered including communication with home-based team, bandwidth, privacy, etc.

shortage by increasing access to care and enhancing recruitment and retention through increased work flexibility in a variety of settings [14–17]. Nevertheless, there are multiple barriers for individuals as well as organizations towards implementing telepsychiatry [18•–20]. This paper reviews the workforce issues facing psychiatry and the rise in burnout among psychiatrists, proffering telepsychiatry as an answer to these issues. Drawing on lessons learned from the field, it discusses how to implement and manage a telepsychiatry workforce. Lastly, it illustrates this implementation through case examples of psychiatrists demonstrating successful delivery of care in a range of clinic settings and workplace configurations.

Workforce Issues

There are multiple problems contributing to the widening gap between mental health demand and the inadequate supply of psychiatrists. There is an over-representation of psychiatrists working in urban vs. rural settings. Even in the urban settings with greater concentrations of psychiatrists, 40% of psychiatrists are going into private, cash-only practices [7]. These practices select for patient populations with a higher socioeconomic status, leaving the insured, impoverished, and chronically severely mentally ill patients under-served. In addition, private practitioners are unlikely to provide supervision to mental health centers or consultation to primary care physicians where the majority of mental health treatment occurs [7]. Besides geographic and socioeconomic disparities in treatment options, there are significant maldistributions in the availability of providers based on age with child and adolescent psychiatrists being in severe shortage [7, 21, 22]. Over 61% of psychiatrists are over the age of 55. Sixty percent of the current active psychiatrists are male, yet 57% of residents going into the field are female [12, 23]. With 30% of women working part-time compared with 18% of males working part-time, this shifts future workforce towards a greater percentage of part-time workers [13]. Lastly, psychiatrists have been increasingly difficult to recruit. The number of medical students going into psychiatry is fixed at 4–5% over the past 35 years in stark contrast to the escalating demand for mental health providers, and in many countries outside the USA, psychiatry residencies have 10% of their spots going unfilled [24, 25]. The World Health Organization notes that in over half of the countries in the world, there is 1 psychiatrist per 100,000 people, where one in four people around the world suffer from a mental disorder [26]. There are multiple reasons for recruitment difficulties into psychiatry including stigma against the profession and mental illness, low prestige, inadequate

compensation, and misconceptions within the medical community that psychiatry is unscientific or the patients untreatable [25, 27, 28].

Burnout

There is a high prevalence of burnout in physician populations, including psychiatrists. The American Psychiatric Association (APA) has estimated that two out of five psychiatrists have professional burnout [29]. Empirical literature has also demonstrated high prevalence of burnout in psychiatrists. In a sample of 125 psychiatrists working for the Veterans Administration, 86% of the sample reported high levels of emotional exhaustion, and 90% reported high cynicism. Interestingly, the burnout construct of cynicism predicted likelihood of leaving the VA within 2 years, demonstrating one of the severe consequences of burnout [30]. In another study, Shanafelt found that in 2011, approximately 40% of a sample of psychiatrists practicing in the USA reported burnout. In 2014, approximately 48% of these psychiatrists reported burnout, suggesting that burnout may be increasing in psychiatrists over time [31]. In another study of early career psychiatrists practicing in the USA, Volpe et al. found that 52% of the sample had "moderate-to-high" scores on all three burnout dimensions as defined by the Maslach Burnout Inventory [32]. Professional burnout is also a significant issue for psychiatrists outside the USA [33–35].

The APA identifies burnout as one of the most pressing issues in the current medical field, and they have created a workgroup to mitigate consequences of burnout through addressing individual and system-level challenges [36]. Burnout can have profound negative implications on physicians, patients, and patient outcomes and can result in organizational consequences [37–38•]. Physicians who experience burnout may have negative mental and physical health consequences [39, 40]. Burnout has also been found to be associated with suicidal ideation in 7905 practicing surgeons in the USA [41]. Additionally, researchers have demonstrated the relationship between burnout and increased medical errors [42–44]. Burnout has negative organizational implications such as reduced physician productivity and turnover, which can have a profound financial impact on the organization [45••–48].

Empirical research on the reasons for psychiatrist burnout is scant. In a recent Medscape survey, psychiatrists attributed burnout to too many bureaucratic tasks, such as paperwork and charting (60%), followed by spending too many hours at work (34%), lack of respect (30%), and lack of control and autonomy (25%) [13]. In a study of psychiatrists working for the Veterans Administration, Garcia et al. [30] found that factors related to burnout included the following: not being part of a coherent team, not having protected time outside of patient care, unfair treatment, having insufficient resources,

number of times on short call, and percent of caseload comprised of severely mentally ill patients [30]. Although telepsychiatry may not be able to address all these factors, it offers unique remedies to reduce burnout.

Telepsychiatry as a Solution

Telepsychiatry, in the form of videoconferencing, may be an optimal solution to the workforce issues, burnout, and shortages in psychiatric care. Telepsychiatry has been defined as "the provision of psychiatric care at a distance through technology" [17]. It is "one of the most rapidly developing fields of telemedicine, and, after teleradiology, the most practiced form of telemedicine in the world" [14, 49]. Telepsychiatry has numerous benefits on the individual level for both patients and providers as well as population and global health perspective [50]. Telepsychiatry has been identified as following the US healthcare reform "quadruple aim" to improve patient care and experience, improve population health, reduce costs, and improve provider experience [51]. It increases access to care, particularly in rural, under-represented areas, decreases time in commuting for patients and providers, and can increase patient comfort and privacy when delivered to the home environment [14, 15, 50–56]. The decreased commuting time for psychiatrists increases their efficiency and allows care to be immediately delivered to multiple clinical settings and geographic regions [15, 17]. Telepsychiatry also improves flexibility for providers who can deliver care from home as well as potentially when living or traveling out-of-state or internationally. Additional benefits of telepsychiatry include decreased travel costs, enhanced educational opportunities, earlier interventions, bundled services, improved care coordination, and accessing patients in non-medical settings such as schools, daycare centers, jails and prisons, and homes [15, 17, 19, 52•, 56]. Most studies demonstrate decreased practice costs when using televideo compared with face-to-face encounters [19, 52•, 53, 56].

When used for integrative and collaborative care with PCP offices, telepsychiatry aligns well with the healthcare reform goals of increasing "effective, cost-efficient, and patient-centered practices" [15, 50, 56, 58]. At least 20 years of research shows that telepsychiatry is safe and effective [17, 59, 60]. Numerous studies demonstrate equal outcomes when compared with face-to-face interactions including feasibility, assessment and diagnosis, certain therapy modalities such as CBT, and medication management [15, 17, 52•, 53, 59–63]. Studies show reduced hospitalizations and improved adherence to medications [59, 64, 65]. A study of 18 non-psychiatric emergency departments in South Carolina from 2009 to 2013 utilizing a centralized telepsychiatry service found that compared with a control group, patients receiving telepsychiatry care were significantly more likely to receive
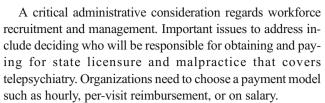
30-day follow-up (46% vs 16%) and 90-day follow-up (54% vs. 20%), less likely to be hospitalized during their initial visit (11% vs. 22%), and had shorter lengths of stay if hospitalized [65]. There are no reports of loss of confidentiality or decreased capacity to respond to psych emergencies and no "absolute exclusion-criteria or contraindications for any specific psychiatric diagnoses, treatments, or populations" [19, 52•]. The majority of studies show high patient satisfaction [15, 19, 52•,-53, 54, 67]. The data on provider satisfaction is mixed with an increase in provider satisfaction for those wanting to increase the diversity of the pathology and patients they treat. There are some providers that seem to be less satisfied with telepsychiatry, when compared with patients, over concerns about decreased therapeutic rapport [17, 56]. Given the benefits and positive data on telepsychiatry, there is a rapidly expanding remote workforce with multiple national and local telepsychiatry companies and organizations as well as individual practitioners integrating telepsychiatry into their practices [14].

Management and Implementation of a Telepsychiatry Workforce

Administrative

There are a number of logistical administrative considerations prior to launching a telepsychiatry practice. First is designating the site of practice for the administrative and clinical teams. Sites of practice may include working from a central office, working from home, or working while traveling. The nature of telepsychiatry allows for any combination of the above sites including having a site of practice change from day to day. It is important to consider how the site of practice impacts job satisfaction, productivity, and efficiency.

Another administrative consideration is telework agreements, which delineate the work conduct parameters for an employee outside the office. Telework agreements should be thoroughly discussed and agreed upon between the initiating organization and the provider. These agreements should include a discussion about documentation and sharing of medical records, electronic health record compatibility, providing adequate bandwidth for the use of video, and ensuring a private, secure environment and televideo platform that is HIPAA compliant. Clinical protocols for telepsychiatry should address safety and emergency procedures at the site of practice, after-hour and vacation coverage, backup plans for technological malfunctions, administrative staff availability for managing technology, scheduling, obtaining consent from patients, transmitting records to the telepsychiatry provider, and staff roles such as who will be in charge of prescribing, writing letters, or submitting prior authorizations for the patient [18•-19, 68].

A critical administrative consideration regards workforce recruitment and management. Important issues to address include deciding who will be responsible for obtaining and paying for state licensure and malpractice that covers telepsychiatry. Organizations need to choose a payment model such as hourly, per-visit reimbursement, or on salary.

Another essential administrative function is to be familiar with the most up-to-date regulatory and legal requirements at the local, state, and federal level for delivering care and getting reimbursed when utilizing televideo. Practices must be in compliance with HIPAA through proper encryption of protected health information (PHI) as well as having Business Associate Agreements with any platform that may transmit PHI such as email, websites, online fax, etc. State and Federal privacy requirements must be followed. Providers must have an active license in the state that the patient is located when receiving the services. For the USA, this allows providers to be out of the state or country where the patient is located during the session as long as the provider's license is active in that patient's state. Though it is currently legal for providers to be located out of the country when providing services, the services may not be reimbursable depending on the patient's insurance. Organizations and practices should follow guidelines for obtaining verbal or written consent and be knowledgeable about the acceptability of electronic signatures. Providers should follow the prescribing guidelines of licensing bodies such as the Drug Enforcement Agency as well as legislative policies such as the Ryan Haight Online Pharmacy Consumer Protection Act of 2008 requiring in many instances an in-person medical examination of a patient when prescribing controlled substances [15, 18•-19, 52•, 68]. Providers should document that the session was done via televideo and apply the appropriate coding for those services [18•]. Reimbursement for Medicaid and commercial insurances vary on the state level, while Medicare reimbursement is determined at the federal level [66]. Currently, all states report reimbursing for telehealth services through Medicaid, 35 states have implemented parity laws requiring commercial insurances to cover telemedicine, though these laws currently only apply parity to coverage and not reimbursement, 19 states reimburse for remote patient monitoring, and 7 states reimburse for store-and-forward technology [69–73].

Technological

There are multiple technologies that enable televideo. A provider and patient may communicate over seemingly any device with a webcam as long as the connection is secure and the bandwidth is adequate [18•]. Internet connectivity can be achieved using a wired connection such as with an Ethernet cable, connecting to WiFi, using a mobile hotspot through one's cell phone, using a SIM card, or with a MiFi, or via a satellite connection. This broad range of internet connectivity

options allows for most areas of the globe to be accessed depending on how much one is willing to spend on that access. Practices and providers should also perform technology and security checks at both the provider and patient site prior to delivering care. These checks should include checking that the microphone, speakers, and camera are working, that there is adequate bandwidth, and that the patient and provider are in private locations. If the provider is working remotely, there may be instances where he/she needs to come into the central office or find a local IT support if having technological issues.

Clinical

The final consideration for implementing and managing a remote workforce is in the clinical arena. Virtual teaming involves how individuals working from separate and remote locations can work together in an effective and efficient manner. Different time zones should be considered when scheduling team meetings. Teams should clarify the different process of communication including who should be communicating with whom, when, and over what technology, e.g., videoconferencing, online chat platforms, email, or phone calls.

Providers must deliver the standard of care to patients whether meeting in-person or over televideo. They should wear professional attire and work from a private and secure setting with a professional background. They should notify clearly in the informed consent with the patient if there will be any limitations in their accessibility to the patient, and if so, how those limitations will be addressed. It is important to explain to patients who they should contact in between sessions or during emergencies, who will arrange scheduling and follow-up, who to contact for refills, how much time they should expect the provider to get back to them with questions, and after-hours or weekend coverage [18•].

Lastly, practices and providers should evaluate the ethical implications of providing care from a remote setting. As previously discussed, most studies reveal that patients utilizing televideo are, "able to communicate as if physically present," are comfortable and satisfied with the modality, find sessions as beneficial as in-person, and would use televideo again [57••, 67]. The providers should check in with patients on their comfort level using televideo and if they feel the modality is interfering with their care. When traveling, providers should consider whether they should notify the patient of their travel and what factors would influence their decision to notify the patient of their whereabouts such as if it would impact transference or would be in the best interest of the patient to know or not know.

Case Example 1

"Tom" is a child and adolescent psychiatrist. He works in a virtual integrated care practice that delivers consultations to primary care offices, residential and rehabilitations centers, and into the prison system. The team consists of around 10–15 people in various clinical and administrative roles including psychiatrists, behavioral health clinicians, program managers, technology specialists, and front desk/scheduling/date collection personnel. The team works in a multitude of settings including a central office, from home, and while traveling both in the USA and abroad. Tom works in each of these settings, though often while traveling abroad. Tom has worked from Australia, Europe, Scandinavia, Canada, and South America, and he has adjusted his work schedule during these trips to coincide with work hours at home. While traveling, he would often spend around a week in each city and travel around the country staying in different hotels or Airbnb's. This requires planning ahead of time to ensure that each location has a stable and fast internet connection as well as appropriate privacy. He travels with a portable background screen that can be placed behind him to provide a professional background.

To communicate with his team and practices by phone, he uses cell coverage either through an international calling plan or a local SIM card. For back up, in case of internet connectivity issues or inadequate bandwidth, he has a mobile hotspot with his cell phone or an international MiFi device. To ensure adequate bandwidth, Tom tests the connection with his team in a new location prior to clinical encounters. To minimize errors and streamline the process prior to travel, his team completes a checklist before traveling (see Table 1). Tom also completes a summary at the end of the trip for quality review purposes to verify that each setting was private, there were no connectivity issues or lag-time in the interactions with the patient, any barriers that arose, and if backup mechanisms were utilized. Obstacles that have arisen while traveling included adjusting to time differences, a power outage in Patagonia with subsequent internet failure, bandwidths being inadequate due to heavy usage on the network, or VPN access issues into the central practice. For the internet failure and inadequate bandwidth, Tom was able to use a backup mobile hotspot, which provided clear and steady communication with the patient. For the VPN issues, Tom was able to work with IT from his central practice, who were able to remotely fix the problem. In disclosing to his patients or the external practices that he was traveling, he decides on a case-by-case basis of whether it would impact care. Billing for services varies based on the insurance provider's policies as well as State and Federal regulations. Tom finds the communications with his team, external practices, and patients to be on par with working from home or from his practice's central office, and he feels he is able to deliver a high standard of care to patients and

providers across 7 trips in 11 different countries over a 24-month period (see Table 1 for recommendations for working remotely while traveling).
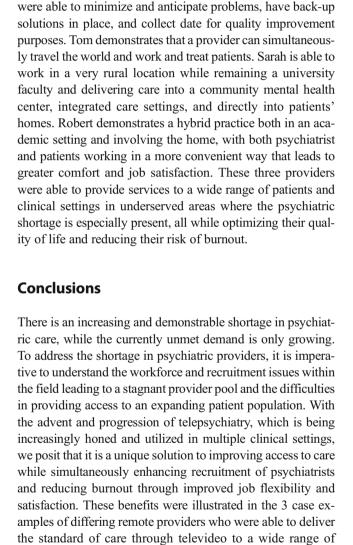
Case Example 2

"Sarah" is an adult psychiatrist who is a provider for a psychiatric outpatient service associated with a university healthcare system. Sarah lives in a rural community over 4-h distance from the university location. Her home office includes videoconferencing with strong bandwidth through satellite broadband. Sarah provides services into three different clinical settings: (1) working as psychiatrist as part of a mental health team for a local community mental health center; (2) psychiatric services for the university faculty at the main clinic location as well as directly into patient's homes enrolled in these services; (3) integrated care services into two of the healthcare systems' primary care clinics. She has been providing these services for several years and stays in contact with her fellow treatment team members through attending team meetings (weekly or biweekly) virtually, phone calls, emails, and quarterly in-person site visits. Her work is covered (malpractice) and regulated by the standard university policies on remote work and telehealth. She utilizes different EHRs in all three settings accessing them remotely through a VPN on her home computer.

Case Example 3

"Robert" is an academic psychiatrist who writes books and academic papers, which he prefers to work on at home. He has seen patients for many years in three settings as part of his clinical and research roles, namely in distant rural clinics, in nursing homes, and in his university office where he works in a hybrid manner with all patients being offered the choice of either in-person or video consults depending on their own preference. He recently bought a cottage at the sea 2 hours from his academic offices and has started to regularly work a 4-day week at the university, with most Fridays now spent working at his new home, where he combines writing with seeing patients and his research colleagues on video, in his high-tech study overlooking the sea. He finds the lifestyle of long weekends away, incorporating work at home, much more relaxing and enjoyable and has discovered that he is actually more productive as well with the lack of interruptions and efficiency of the video consults. He plans on increasing his time at home in the future.

Discussion

To provide examples of telepsychiatry being utilized in practice, we discussed three case examples of providers working in differing remote clinical settings including from multiple international locations, from a static international location, and from home in the USA. These examples highlight how the administrative, technological, and clinical considerations that go into a remote workforce have been used to recruit these providers, enhance communication with their teams, outside practices, and patients, and ensure security and privacy in the encounters. In each of these cases, the providers were able to increase access and to deliver the standard of care. Though barriers may have been encountered while working remotely, through careful planning and the use of telework agreements, workflows, and in Tom's case pre and post trip reports, they were able to minimize and anticipate problems, have back-up solutions in place, and collect date for quality improvement purposes. Tom demonstrates that a provider can simultaneously travel the world and work and treat patients. Sarah is able to work in a very rural location while remaining a university faculty and delivering care into a community mental health center, integrated care settings, and directly into patients' homes. Robert demonstrates a hybrid practice both in an academic setting and involving the home, with both psychiatrist and patients working in a more convenient way that leads to greater comfort and job satisfaction. These three providers were able to provide services to a wide range of patients and clinical settings in underserved areas where the psychiatric shortage is especially present, all while optimizing their quality of life and reducing their risk of burnout.

Conclusions

There is an increasing and demonstrable shortage in psychiatric care, while the currently unmet demand is only growing. To address the shortage in psychiatric providers, it is imperative to understand the workforce and recruitment issues within the field leading to a stagnant provider pool and the difficulties in providing access to an expanding patient population. With the advent and progression of telepsychiatry, which is being increasingly honed and utilized in multiple clinical settings, we posit that it is a unique solution to improving access to care while simultaneously enhancing recruitment of psychiatrists and reducing burnout through improved job flexibility and satisfaction. These benefits were illustrated in the 3 case examples of differing remote providers who were able to deliver the standard of care through televideo to a wide range of patients and clinical settings, while simultaneously optimizing provider job satisfaction. Limitations of this paper include the small sample size and subjective nature of the reports. Additionally, as technology advances and telemedicine gains global attention and importance, the guidelines, regulations, legal standards, and reimbursement policies are rapidly evolving, so organizations and individual practitioners must stay up to date on all changes. Further studies will be needed to

provide more objective data. These studies should focus on examining if offering the option to work remotely enhances physician recruitment and decreases physician burnout. Additionally, the ethical and clinical implications of whether or not to disclose to a patient and practice where the physician is working from should be further explored. Though the national and global mental health challenges appear to be daunting, these challenges can be greatly mitigated through novel approaches such as described in this paper.

Compliance with Ethical Standards

Conflict of Interest Brittany E. Plaven and Peter Yellowlees declare that they have no conflict of interest.

Jordan S. Gardner is a staff psychiatrist for AccessCare which provides telemental health services. Jay H. Shore is the Chief Medical Officer for AccessCare which provides telemental health services. Dr. Shore receives royalties from American Psychiatric Association Publishing and serves on its board of directors.

Human and Animal Rights and Informed Consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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