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Tele-Behavioral Health, Collaborative Care, and Integrated Care: Learning to Leverage Scarce Psychiatric Resources over Distance, Populations, and Time

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With significant unmet population health needs for mental health care and a continued shortage of psychiatric providers, future psychiatrists will increasingly need education in new care delivery approaches that address these problems, especially for individual patient care delivery such as telebehavioral health and integrated care. These educational needs can be conceptualized as clinical skills for different modalities of individual patient care and leadership abilities to use systematic approaches to provide population-based care. In this column, we review key learning needs, educational strategies, and available resources to support educators in their curriculum development and implementation activities for the delivery of these emerging approaches to psychiatric care.

While there is a growing need to train graduate learners in integrated care(IC)/collaborative care model (CoCM) and tele-behavioral health (TBH), one significant and often overlooked challenge is that faculty members who are called upon to supervise may not themselves have experience or training working in this area. Faculty members require not only the ability to provide these types of care but also the ability to teach, supervise, and assess trainee performance in these areas. Many of the resources we identify as relevant for trainees could also be useful for faculty members starting out in this area. Faculty members could also consider creatively pursuing different professional development opportunities with transferable competencies relevant to new care delivery models based on their individual learning needs and the available educational opportunities in their setting, for example

training in the areas of public health, leadership, quality improvement, and/or education scholarship. In this article, we also aim to identify some practical, readily available teaching and assessment resources so that newer faculty can use and/or adapt them without having to "reinvent the wheel."

Emerging Learning Objectives for Changing Approaches to Patient Care Delivery

When learners start to train in new approaches to integrated care delivery, it is important that they understand the rationale and need to introduce these innovations in psychiatric care delivery. Learning objectives for this topic could include the ability to explain the rationale for using new strategies to leverage psychiatric expertise, name core principles and strategies of common integrated care approaches, describe a spectrum of integration of the various integrated and collaborative care models, and list the evidence for these models. It is critical that learners understand that depression and other common mental disorders are now the leading cause of health disability worldwide [1], and that despite this, most adults with diagnosable mental health disorders do not receive mental health care. The reality that if patients do obtain care, they are more likely to do so from a primary care provider [2] may not be apparent to trainees early in training, when they spend most of their time in inpatient and specialty settings. Many trainees may not appreciate that this lack of access to psychiatric care is likely driven by a combination of both patient and provider factors. While primary care providers commonly begin by referring patients to a behavioral health provider, like a psychiatrist or therapist, patients often do not follow through with referrals [3] and even when they do follow through, they often do not engage in an effective course of treatment with one study showing an average of two visits [4]. Provider factors, for example the fact that the existing psychiatrist workforce is insufficient to meet the demands of the mental health

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needs of the US population, also likely contribute to lack of access to mental health care [5, 6]. Additionally, geographical accessibility may affect the intensity of mental health visits and, in turn, the quality of treatment received over time [7]. Once this reality is appreciated, trainees may be more likely to seek and be receptive to opportunities to be trained in innovative care delivery models that have emerged to offer solutions to these challenges.

Tele-behavioral health leverages psychiatric expertise using technology to overcome distance as a barrier to care. Learning objectives related to this approach may include describing the evidence base for TBH, understanding policy and financing considerations when providing TBH, and adapting interviewing techniques to establish a rapport and efficiently gather information using tele-video consultation, especially in medical settings. Learners will need to appreciate that this approach has demonstrated acceptability to patients and providers, results in equivalent outcomes for common mental health disorders, such as depression, anxiety, and attentiondeficit/hyperactivity disorder, and can increase access to mental health care for patients [8, 9]. When making the case for using a TBH approach, it is especially helpful to address the challenge of geographic maldistribution of psychiatrists whereby there is more psychiatric resource per capita in urban settings compared to rural settings [5]. Although considerable implementation barriers to tele-behavioral health still exist, with the decreasing cost of tele-video equipment, increasing capacity for bandwidth and increasingly favorable policy climate, there are more opportunities to deliver mental health care via this approach [10]. However, direct patient care via tele-behavioral health still has a significant limitation in that it does not increase the total number of patients that can be cared for by a psychiatrist as these encounters continue to be delivered in a traditional model of care where a psychiatrist sees one patient for a full consultation.

Additional novel technology-driven mental health care strategies are also emerging [11], such as e-consults (which leverage specialty expertise through a chart review and provision of recommendations provided without any direct patient evaluation [12, 13]) and asynchronous "store and go" approaches (which record a standardized patient interview conducted by a trained clinician, and this material is later reviewed by a psychiatrist, and recommendations are generated). These emerging approaches may leverage psychiatrists' time to efficiently lend their expertise to more patients, and can also overcome geographical barriers to access. Example learning objectives for these approaches include evaluating the suitability for e-consultation (e.g., typically the diagnosis is already fairly well established), developing trust as an element of collaborative professional relationships, listing medicolegal and clinical guidance for safer practice (the former may be jurisdiction specific), and applying strategies for communicating the limitations of one's advice and keeping communication channels open. Learners often have trepidation

about providing advice without having directly assessed the patient; it is important to explore the tension between the desire for complete information and developing a professional standard for obtaining enough information to provide meaningful clinical input where the alternative is limited access to psychiatric expertise. To explore this dilemma, learners will benefit from opportunities to appreciate both the advantages of these approaches, such as leveraging psychiatric expertise over time so that there is efficiency in a psychiatrist effort to maximize time spent reviewing cases and making recommendations with no loss related to no show rates [14, 15] and the limitations of these interventions, such as with store and go the inability of the psychiatrist to probe or shape the interview according to emerging interview material and developing clinical hypotheses. Additionally, risk, liability, and accountability will need to be discussed as trainees practice new approaches to care.

Other innovative approaches to care delivery involve using the psychiatrist to support a team to deliver integrated mental health services in primary medical settings, such as the collaborative care model (CoCM) in which psychiatrists work with primary care providers and behavioral health care managers to deliver mental health care in a primary care setting. Learning objectives for practicing as a collaborative care psychiatrist may include describing the evidence-base for CoCM for common mental health disorders, listing the principles of CoCM, understanding the roles for each team member of a CoCM, developing skills in indirect assessment during case review with a behavioral health care manager, applying measurement-based treatment to target approach, and using a clinical registry as part of a psychiatric practice. Learning about CoCM can also introduce the concept of the quadruple aim [16] of health care system optimization since studies have demonstrated that this model improves patient satisfaction [17], improves patient outcomes [18-20], provides cost effective of care [21], and improves provider experience [22, 23]. As with each emerging model, learners will need to understand both significant advantage of CoCM to leverage scarce psychiatric resources through a team to provide input in the care of many more patients than a psychiatrist could through direct patient care, and the limitations of this model requiring significant practice change for effective implementation, needing to engage primary care providers, and frequently encountering challenges with financial sustainability.

Learning to Lead Systems-Level Change to Deliver Psychiatric Care to Populations

There are exciting opportunities to combine these approaches to meet the needs of a population. New approaches, utilizing tele-behavioral health and e-consult to redistribute psychiatric resources in combination with collaborative care approaches leveraging a team, have the potential to substantially address the lack of access to mental health care [24]. Psychiatrists need to learn how to match the leverage strategy or strategies to the population health needs and resources of a community. Psychiatrists are well situated to act as leaders in clinical innovation, where they will need to be able to recognize the needs of a community and pick one or more technologyenabled strategy to build a spectrum of care delivery approaches that serves the population. For example, a psychiatrist may be asked to serve three primary clinics located in a geographic area with one full-time psychiatrist. An approach might include using one clinic (perhaps the largest clinic or clinic with adequate space) as a home base and spending 40% time delivering asynchronous consults and e-consults, 30% time supporting collaborative care using tele-behavioral approaches working with care managers, and 30% of time to support direct tele-behavioral health care. This strategy would maximize the effectiveness of the limited time of one psychiatrist to serve a large population of patients in a stepped-care approach with lowest need patients receiving an e-consult, patients with moderate need being treated with collaborative care, and the highest need patients receiving direct care. Understanding the rationale and evidence for these models, analyzing the relative advantages and challenges with each approach, and having a sound approach to implementation, quality improvement, and program evaluation will be important for serving in this role [25] and become important learning targets for trainees.

Resources and Strategies to Provide Education in Tele-Behavioral Health and Integrated Care

Start with Faculty Development

In order to provide educational opportunities to trainees, faculty must first build their tele-behavioral health and integrated care knowledge and skills through formal training opportunities, such as those listed in Table 1 and develop specific clinical skills. On a more local and perhaps informal basis, peer mentorship can enable reflective practice and problem solving to address challenges encountered in modifying one's clinical practice. For example, peers can provide support around forming new relationships with organizations, ensuring appropriate funding to enable the work, designing/redesigning the model of care, modifying one's practice style, managing time when consulting across multiple organizations, and evaluating and continuing to improve programs. Clinician innovators on the leading edge of care delivery models may find a shortage of like-minded peers in their local setting and may find conferences such as the Institute for Psychiatric Services (IPS), Collaborative Family Healthcare Association (CFHA), and Canadian Collaborative Mental Health Care Conference (CCMHCC) to be venues for networking with potential peer mentors outside one's institution. Faculty may also creatively identify relevant professional development opportunities according to their needs through related content areas such as public health, quality improvement, leadership, and education scholarship.

Learn Core Didactic Content About Tele-Behavioral Health and Integrated Care and Develop Specific Clinical Skills for These Approaches

To date, this type of training in tele-behavioral health and integrated care has rarely been implemented for residents and fellows [34], or when implemented have failed to address the most empirically supported models of CoCM [25, 35]. However, emerging opportunities for reimbursement for these approaches [36] are creating new demand for continuing education activities and training programs to provide training related to tele-behavioral health and collaborative care delivery.

Fortunately, there are also a growing number of resources describing competencies and curricula for tele-behavioral health [37-40] and integrated/collaborative care [34, 41-43]. These resources can be useful for both faculty and trainees. Both the APA and the Canadian Medical Protective Association offer guidance on medicolegal aspects of indirect consultation [44-46]. The American Psychiatric Association (APA) has made available a free online CoCM training program through a grant from the Transforming Clinical Practices Initiative [27]. The APA has also developed a telepsychiatry toolkit that includes core topics in tele-behavioral health taught in video presentations from experts [28]. On a smaller scale, Huang and Barkil-Oteo developed a 2-h curriculum to teach psychiatry residents to provide caseload consultation [47]. Once you have learned core didactic content about tele-behavioral health and integrated care, establish didactic experiences for learners. This could be as simple as having learners use didactic time to read key papers or view an available online curriculum in combination with a facilitated in person discussion [27, 29, 30]. Co-learning with both faculty and resident participation is also an option [25].

Develop Clinical Training Settings for Learners to Practice Key Skills for Care Provision

Clinical skills needed for tele-behavioral health and integrated care may already be partially addressed in other rotations. For example, established rotations could add measurement-based treatment to target and registry use to an outpatient specialty setting. Another example would be to consider enhancing a discussion of team communication during inpatient

Table 1 Learning needs for leveraging integrated care, collaborative care, and tele-behavioral health approaches

	Educational Learning Objectives	• Strategies	 Example available resources
Changes in patient care delivery	 Describe rationale for using new strategies to leverage psychiatric expertise. Describe a spectrum of integration and the evidence to support the various IC, CoCM, and TBH models. List core adaptations to practice needed to deliver mental health with scarce resources including IC, CoCM, and TBH. Describe patient safety and medicolegal liability issues for consultants and clinical teams in IC and TBH. Use strategies to ensure safe patient care. Develop a patient care plan with nonpsychiatric provider including a contingency plan. Provide education to nonpsychiatric team member in both verbally and in a note. Write an effective consultation note to a referring provider in the IC setting. Provide a safe and helpful informal (e.g., oral or electronic) case consultation to a colleague in IC. Apply an integrated/collaborative care approach to deliver care as part of a team. Demonstrate ability to deliver services using tele-behavioral and asynchronous approaches. List key considerations related to risk and accountability in new practice modalities. 	Deliver didactic content as part of core curriculum (utilize local faculty or available online resources). Practice team-based care and communication practice in any relevant clinical setting. Practice using measurement-based care and a registry in any longitudinal clinic. If no integrated care delivery available, focus on delivery of core principles. If integrated care, practice as a psychiatric consultant. If no tele-behavioral health practice, engage in simulation using conferencing software. If tele-behavioral health, practice assessment and care delivery.	AADPRT virtual training office integrated care resources [26] APA integrated care training [27] APA telepsychiatry toolkit [28] Online integrated/collaborative care curricula [29, 30] Conferences (IPS, CFHA, and CCMHCC)
Leadership for system-based care delivery	 Assess psychiatry needs of a population. Understand the organization you are consulting to, the population it serves, and the social determinants of health most relevant to this population. Assess available psychiatric resources of a system; understand the roles and scopes of practice of other providers. Design a strategy to combine resources and care delivery approaches to meet needs of a population; identify the met and unmet patient, provider, and population needs in the current model of IC within their clinical setting. Identify a change idea and assess potential opportunities, enablers, and challenges of change. Design a quality improvement project to improve individual practice based on IC, CoCM, or TBH principles. Evaluate how funding and practice models influence the available resources in your clinical setting. 	Quality improvement projects	AADPRT virtual training office quality improvement curricula [26] AHRQ integration academy playbook [31] APA integrated care training learning collaborative [27] Institute for healthcare improvement: Q1 102 [32] RCPSC teaching quality improvement in residency education [33]

consultation-liaison service. Additional opportunities could be to discuss integration/collaboration in the context of existing outreach rotations, e.g., to long-term care facilities, schools, or rural or remote communities [35]. The use of simulated experiences may be helpful to practice key skills. For example, any web-based conferencing software could be used to simulate the experience of interviewing patients over video using role plays between learners, even just sitting rooms next to each other. This would provide a simulated experience to also discuss privacy/security considerations for actual clinical care. Lastly, although integrated care clinical services can take a lot of time to develop, exploring

existing or new partnerships and developing opportunities for care delivery can be rewarding. Longitudinal training experiences may be ideal to facilitate this [25].

Develop a Tele-Behavioral Health and Team-Based Care Mindset

Although these resources support the clinical skill development necessary to delivery mental health care using innovative approaches, psychiatrists may still struggle to feel comfortable in working in new ways, such as providing indirect care [48] and asynchronous activities, such as e-consults. One

strategy to overcome this challenge may be to focus on fourquadrant decision making; a psychiatrist must consider both the pros and cons of using a novel intervention and the pros and cons of not using a novel intervention. This frame for decision making is critical because psychiatrists may be concerned about the quality of the care they deliver resulting in a focus narrowly defining "good" care only as a full course of treatment and miss out on the broader opportunity to dramatically improve access to care, patient experience, and outcomes through novel approaches for a broader population of people experiencing mental illness. In other words, psychiatrists may be accustomed to thinking about quality of care for the individual patient they see and not for the many patients unable to access specialist care. Another challenge can be the pressure to take on the "expert" role in a primary care team, especially when there is a relatively high degree of psychiatric complexity. To address possible "imposter syndrome," psychiatrists may need to relinquish the self-expectation of a unidirectional flow of expertise and advice, recognizing all members of the team as having something unique to offer our shared patients [42].

Develop Leadership Skills to Address Mental Health Needs of a Population

Identifying opportunities for leadership development is important to improve systems of care and delivery of population health for all psychiatrists [49, 50]. Case-based learning and simulations may be suitable pedagogical strategies for more junior trainees learning basic concepts and skills in population health and program development, and mentored leadership opportunities to apply these concepts may be suitable for more senior trainees transitioning to practice. In our experience, trainees may experience some dissonance between the optimal integrated care models or quality standards taught in a classroom curriculum and the variations models of care that have been implemented in their clinical training experiences [51]. Providing trainees to an opportunity to participate concurrently in delivering integrated care and actively learning to incrementally improve integrated care can address this gap [25], and we have received positive feedback from alumni about the broader relevance and transferability of these skills. Another example of quality improvement-related exercise could be a discussion of gaps of care that might be encountered in the community. Discussing under identification of conditions, delays in treatment initiation or optimization of treatment, and tactics to address these problems should focus on a leadership mindset of improving the health care system rather than critiquing individual providers. Peer learning collaborative approaches to gain experience in these new strategies and apply them in their current practice settings are helpful for continuing professional development and faculty development [52].

Conclusion

The proliferation of new mental health care delivery strategies using tele-behavioral approaches will likely continue to challenge educational systems given the rapid pace of innovation. Many of these approaches rely upon a team to work together effectively to deliver care; we must seek opportunities to train as teams to be successful in this interdependent culture [25, 53]. Increasingly, psychiatrists will be asked to leverage their expertise over populations of patients and utilize any available tools to be able to expand access to their expertise. This will require a fundamental attitudinal shift regarding the roles of psychiatrists, as well as familiarity with new technologies, such as mobile application or computer-based treatment delivery [39, 54, 55] and with foundational concepts and tools in population health and quality improvement. Psychiatrists and psychiatry training programs will need to stay current with emerging evidence; make decisions about which innovative clinical service delivery strategies are indicated, effective and contextually relevant and how trainees can be involved in them; and consider how best to implement these approaches into their current practice. We look forward to seeing continued educational innovations in this cutting-edge space for both psychiatric trainees and the current workforce as addressing these educational needs will be critical to support sustainable access to care for the largest number of patients.

Compliance with Ethical Standards

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