The Future of the Psychiatrist

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Objective: The American Psychiatric Association (APA) issued a 2023 report on the future of psychiatry, focusing on how the organization should position itself in relation to coming developments over the next 10 years. Here, we follow up with a discussion of how the psychiatrist's role needs to evolve to adapt to the changes ahead.

Methods: We drew on senior experts and junior trainees within the APA's Council on Healthcare Systems and Financing, along with additional content experts, to choose areas of focus and discuss their interrelationships. Literature review focused on publications with implications of these areas for future training and practice.

Results: We are only ~5% of the mental health work force, and we have unique strengths, including training providing us the ability to discern the varied factors contributing to distress, and direct and apply interventions across all available modalities. Psychiatrists make best use of our capabilities when we lead the process of comprehensively formulating patients' problems and generating a multifaceted treatment approach. We have chosen six areas where we envision new developments impacting how psychiatrists will practice and residents should train: digital data and precision medicine, measurement-based care, artificial intelligence (AI), psychotherapy, integrated care, and care for the seriously mentally ill. We provide suggestions regarding next steps that will allow us to make the best use of our training and expand access to high quality diagnosis and care.

Conclusions and Relevance to Clinical Practice: We will need to handle the most challenging cases: the most psychiatrically complex, medically complex, and treatment-resistant. We must preserve our skill, unique among physicians, in psychotherapeutic approaches, even as we manage psychiatric illness. We must also adapt and become more tech-savvy, as digital data, mobile and computer-based treatments, electronic medical records, and AI algorithms take on increasing prominence in our field.

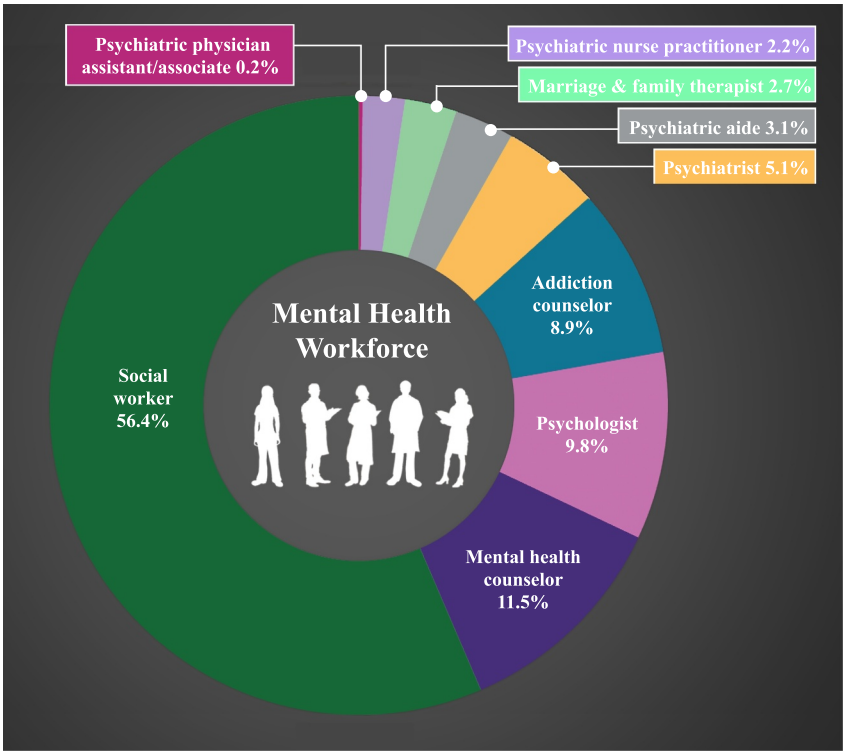
Psych Res Clin Pract. 2025; 7:80–90; doi: 10.1176/appi.prcp.20240130

In 2023, the American Psychiatric Association (APA) issued a report on the future of psychiatry (1), focusing on how the organization should position itself in relation to predicted developments over the next 10 years. Here, we follow up with a discussion of how the role of the psychiatrist must evolve to meet the challenges ahead. A key consideration is the psychiatrist's position in the context of the mental health workforce, which is ~980,000 strong, with only ~5% being psychiatrists (Figure 1) (2). What unique skills distinguish the psychiatrist and how can those be most effectively capitalized upon? All the other disciplines have the advantage of costing less than psychiatrists. Some have more formal training in psychotherapy. Some psychologists have more research training than psychiatrists. Psychiatric nurse practitioners have some formal medical training. But in comparison to all groups, psychiatrists have the most overall and broadest range of training, and the most intensive medical training.

HIGHLIGHTS

- In these six areas new developments will impact how psychiatrists will practice and residents should train: digital data and precision medicine, measurement-based care, artificial intelligence (AI), psychotherapy, integrated care, and care for the seriously mentally ill.
- Psychiatrists, just 5% of the mental health work force, will need to handle the most challenging cases: the most psychiatrically complex, medically complex, and treatment-resistant ones.
- Psychiatrists must preserve their skill, unique among physicians, in psychotherapeutic approaches, even as they manage psychiatric disease.
- Psychiatrists will need to adapt and become more tech-savvy, as digital data, mobile and computer-based treatments, electronic medical records, and AI algorithms take on increasing prominence in the mental health field.

FIGURE 1. According to a National Center for Health Workforce Analysis assessment of the 2021 behavioral health workforce, there were 980,511 mental health professionals in the U.S. Of these, 50,376, or just 5.1%, were psychiatrists (2).



The result: we have the greatest ability to see the patient from all angles and to direct and apply interventions across all modalities.

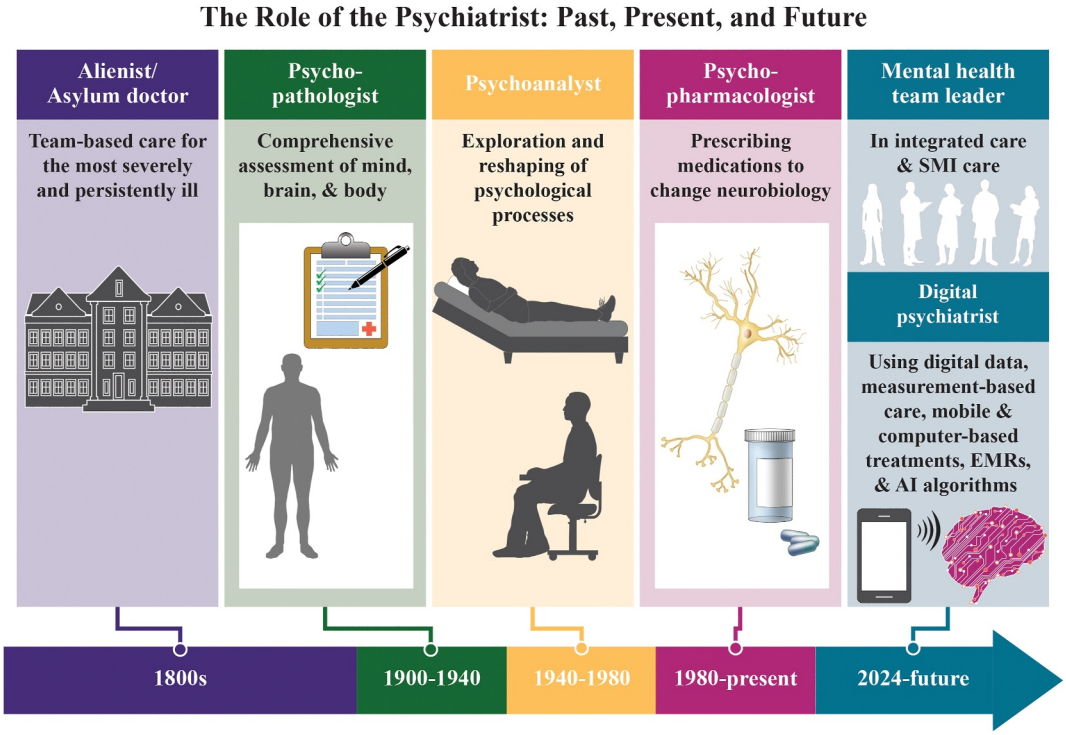
The role of the psychiatrist has shifted over time (Figure 2). In the 1800s, psychiatrists were "alienists," asylum doctors focused on the most severely mentally ill, who led a team of caretakers. In the early 1900s, medicine became more science-oriented and psychiatrists became psychopathologists (3), with increased focus on acute care and recognition that some illnesses, like general paresis, could be treated effectively. This approach involved careful diagnosis and emphasized data. From ~1940 to 1980, the psychiatrist was often psychoanalyst, and clinical care focused on the psychology of the whole person, included those with milder distress, and prioritized insight (4). In the current era, we have a remedicalized psychiatry, prize empiricism, focus on biology, and emphasize medications, with the psychiatrist in the role of psychopharmacologist or "prescriber" (5).

"Prescriber" captures one element distinguishing psychiatrists from most mental health practitioners. But we can prescribe medications *and* employ other treatments, including psychotherapy. And we are not alone in prescribing psychotropic medications, as psychiatric nurse practitioners, and other physicians, can too, albeit with much less training in doing so. An underappreciated, yet critical element of the psychiatrist's unique skill set is our ability to comprehensively formulate the nature of patients' problems, their likely causes, and the most effective path for addressing them. In doing so, many employ a pluralistic framework (6, 7) built on an extensive assessment (8). This approach instills hope and confidence in the patient regarding the clinician's commitment and concern, and leads to greater diagnostic clarity (9), comprehensive care of the disorder and the person, and a multi-faceted treatment plan.

Psychiatrists take fullest advantage of our strengths when we lead the process of assessment, formulation, and treatment planning. While we may employ interventions on our own, we will increasingly need to lead teams that can implement our plan. We may also oversee utilization of data to follow patients, see how the plan is working, and whether it needs modification. Data can also inform the plan's creation, and may in the future allow us to tailor treatment choices more precisely to a patient's profile. Our teams going forward may include not only people with mental health skills, but also artificial intelligence (AI)-driven machines with sophisticated training of their own.

We chose six areas where we see future developments impacting the psychiatrist's role: digital data and precision medicine, measurement-based care (MBC), AI, psychotherapy, integrated care, and care for the seriously mentally ill.

FIGURE 2. The psychiatrist's role has undergone significant evolution over the last 150 years, as new developments in medicine, psychology, pharmacology, technology, workforce, and economics have shaped where we focus and how we practice. The figure depicts the themes that have dominated the role in each era, though the work of the psychiatrist has never been limited to each theme. Some psychiatrists today integrate psychotherapy with psychopharmacology, and many will continue to do so over the next 10 years, even as new elements of our role emerge.



Digital Data and Precision Medicine

Digital tools can add value for psychiatric care in several ways, including through collecting relevant data to fill in gaps between visits. These tools–smart phones, wearables, etc.—can provide richer data than obtainable strictly through clinical encounters, and lead to more informed decision-making. Phone apps, like mindLAMP (10) and Beiwe (11), collect both passive and active data. Passive information, collected from sensors even when the user is not engaging the app, includes GPS to monitor mobility patterns, anonymized call and text logs to inform social engagement, and voice patterns and activity levels reflecting mood. Active information, collected only when the app is being used, includes completing surveys and self-report scales, and taking cognitive tests, often during real-world activity potentially relevant to distress (i.e., ecological momentary assessments) (12). Digital data might be used, for example, to capture disturbed sleep patterns as a precursor to depression relapse, with the possibility the aberrant sleep signature could trigger an intervention like increasing antidepressant dose. Work is ongoing examining the ability of digital interventions to mitigate suicide risk, with one meta-analysis of studies employing cognitive behavioral therapy approaches finding they significantly reduced suicidal ideation (13).

Digital data can also be used for precision medicine, which aims to stratify disease categories comprised of patients with varied presentations into more homogenous sub-types, ideally with differential response to treatments (14). Defining these subtypes requires large numbers of patients and consideration of various types of information, including that generated from mobile devices, electronic medical records (EMRs), and biological assays, like genetic profiles, metabolomics, brain imaging, and EEG. This work includes the potential for developing blood- and saliva-based and imaging-based biomarkers of types and subtypes of psychiatric illness, and of treatment response. Skills in medical informatics, bioinformatics, and biostatistics all come into play in generating the data, interpreting it and using it to effectively guide clinical care. Training in digital psychiatry should be an element of the future psychiatrist's curriculum. Orsolini surveyed psychiatrists in six Asian countries and found 72% had no such training, while 82% felt it important education in this area be implemented (15). The University of North Carolina psychiatry residency offers a clinical informatics track and Beth Isreal Deaconess Medical Center offers a digital psychiatry didactic series. Torous et al. have laid out the competencies this type of training should incorporate based on an ACGME framework (16).

Training should involve education about risks inherent in digital technologies and their mitigation. The collection of digital information can be sensitive, especially for psychiatric patients, who may have increased concerns about the potential for violation of privacy and confidentiality. One paper reported 41% of mental health apps did not have a privacy policy to inform users about how and when personal information would be collected, retained, and shared with others (17). The concern has also been expressed that passive monitoring may inadvertently increase the stigma associated with mental illness (18). Privacy and security are the foundational aspects in the APA's app evaluation framework, a process to inform the optimal selection and use of mental health apps (19).

Measurement-Based Care

MBC is an approach that systematically assesses patients' symptoms, functioning, and treatment response using validated measurement instruments like the PHQ-9 and GAD-7 (20). It aims to enhance the precision and effectiveness of treatment by tailoring interventions to individual patient needs and monitoring progress over time. MBC represents a shift from practices based solely on clinical judgment to a more objective and data-driven approach, aligning with the broader movement toward evidence-based medicine (21). The core principle of MBC is routinely collecting standardized data to inform treatment decisions. This framework allows clinicians to track changes in patients' condition, identify treatment responses, and make timely adjustments to optimize outcomes. MBC can provide a shared language, which can facilitate collaborative care decisions between patients and clinicians. Ultimately, this provides more transparent communication about treatment goals, progress, and potential adjustments to the plan. Additionally, MBC promotes a shared understanding of treatment outcomes, empowering patients to participate in their care and strengthening the therapeutic alliance.

Numerous studies have illustrated the advantages of MBC across psychiatric disorders. For example, Trivedi et al. demonstrated integrating MBC into chronic depression treatment resulted in remission rates surpassing those observed in other efficacy studies (22). Guo and colleagues found treatment guided by systematic measures for depression was associated with higher rates of response and remission compared to treatment as usual (23). For schizophrenia, MBC has shown promise in optimizing antipsychotic management. Khau et al. demonstrated the utility of MBC in identifying patients requiring clinical attention based on poor treatment indicators. A total of 63% of their patients received timely medication adjustments, 47% of whom were offered clozapine with functional improvement after 1 month (24). These findings suggest quantitatively tracking symptoms and adjusting treatment accordingly can contribute to better outcomes.

Integrating MBC into routine practice necessitates overcoming practical and professional barriers, including time and resource limitations and a need for more clinician education and empowerment. However, the potential benefits regarding treatment outcomes, patient engagement, and cost-effectiveness underscore the importance of addressing these barriers. The cost of administrering symptom severity scales is minimal, and the benefits of MBC are enormous for patients, physicians, and payors. MBC has been around for a long time, but only more recently have federal agencies established initiatives to promote widespread adoption of MBC in psychiatric settings, providing resources, training, and support to clinicians (25). Some payors are beginning to strongly encourage adoption of routine MBC in behavioral healthcare, and to build requirements around MBC into their provider contracts. As the industry moves towards value-based care arrangements (i.e., paying for improved outcomes as opposed to for services per se), MBC allows for measurement of the objective effectiveness of individual providers in delivering care that drives better outcomes. EMR companies and biotech start-up efforts are focused on building workflows that facilitate integrating MBC into their record systems.

MBC represents a paradigm shift, moving us towards a more data-driven approach to treatment decisions. The evidence supporting the efficacy of MBC across disorders highlights its potential to enhance mental health care quality and promote patient-centered practices. It will be imperative for psychiatrists to champion the use of MBC approaches by the teams they oversee and lead the field in this transformation.

Artificial Intelligence

Computing techniques, like Natural Language Processing and Large Language Models (collectively, AI), are quickly emerging as powerful tools creating profound change in society, including in psychiatry. While forms of AI have been around for decades and leveraged by healthcare systems, the introduction of ChatGPT in 2022, with its user-friendly interface and generative AI engine, dramatically broadened the scope of what these tools can achieve and significantly decreased the learning curve for AI development and implementation. We must identify ways to work with and provide guidance in the deployment of these novel tools, to augment and improve our practice, and guard against the problems they could bring.

AI shows promise for improving practice efficiency and creating clinical value. AI applications are being explored to optimize scheduling, coding, billing, note-writing, and quality control. Studies in AI-driven note-writing have shown it can be highly effective at writing surgical notes (26). The interest in AI is reflected in a survey that found 70% of psychiatrists felt it would assist with documentation, and 80% felt they would benefit from training in AI tools (27). Preliminary studies have shown AI has

successfully classified mental illness in certain well-defined scenarios (28). However, underlying this potential capability is a question of what data the AI is being trained upon, as, for example, use of low-quality Reddit and social media data will result in less robust clinical decision-making than use of high-quality data like that from DSM-5 field trials. While many hurdles remain, a future strength of classification models will be their ability to identify patterns in large-scale data of use to psychiatrists. Declines in cognitive functioning, early stages of decompensation, and biomarkers of illness might all be easier to detect through AI. Precision psychiatry, which depends on integrating multiple data sources, could be furthered through AI (29), potentially leading to more targeted treatment decisions. However, many challenges must be tackled if these benefits are to be realized.

AI has the potential to reduce health disparities, though we must guard against the possibility it could also exacerbate them. One example of AI being used to reduce disparate access to care involved deployment of tools allowing a county care system to identify those in greatest need, and better and more effectively coordinate their services (30). Additionally, through AI, individuals can advocate more effectively for themselves, through identifying social services and local resources, and gathering information about their diagnosis and treatment. As with the Internet, widespread adoption of AI may lead to its access becoming a notable social determinant of mental health. While AI has great potential to benefit those who utilize it, we will need to work to improve our patients' AI literacy.

AI will inevitably impact all aspects of psychiatric education due to increasing demand to use novel AI tools in practice. Updating of curricula to provide learners with critical skills necessary to evaluate AI tools will be needed, with benefits including improved access to information, and assistance from algorithmic diagnostic and treatment recommendations (31). However, residencies must also teach trainees to vet AI-generated information and not hand over clinical decision-making to it. The APA has cautioned that AI is not currently capable of such autonomy. Steps are being taken in other specialties to address these issues, including creation of AI curricula in radiology residency training (32) and using AI to optimize and personalize ophthalmology resident case exposure (33).

Psychiatrists have a responsibility to identify and mitigate mental health risks associated with AI. Concerns exist regarding the lack of transparency within the architecture of AI programs, as they can become "black boxes inside of black boxes." For example, with complex ethical issues like capacity, commitment, or treatment coverage, it might not be clear whether the assumptions or processes within an AI system are adequate to render just conclusions. Other potential risks may loom, like harmful consequences of perpetuating and exacerbating racial bias in clinical algorithms (34). Broader concerns include major unknowns like how widespread adoption of AI will impact society-wide mental health, and whether there are unintended consequences of developing simulacrums feeding emotional and social needs without real human interaction.

The Pandora's box of AI and mental health has been opened, and psychiatrists must play a role in guiding how what has been unleashed develops. Next steps should include researching the reliability of using AI to improve note writing, billing, and collaborative care, and whether AI can be leveraged for predictive analytics in mental health; identifying a clinical role for AI; planning for incorporation of AI into residencies; and encouraging study of public mental health impacts of AI access.

Psychotherapy

Psychiatry has been increasingly divorced from psychotherapy, with some psychiatrists being siloed into prescribing medications without administering or even recommending psychological interventions (35). For the psychiatrist of the future, a solid foundation in psychotherapy skills will continue to be a cornerstone of effective care. Strong psychotherapy skills empower us to better assess, diagnose, and address the complex interplay of biological, psychological, and social factors underlying psychiatric distress.

When psychiatrists possess strong psychotherapy skills, we are more adept at engaging with and achieving trust with patients with diverse presentations. Establishing trust is essential to developing and maintaining a therapeutic alliance, which leads to deeper engagement, improved adherence, and more positive outcomes (36). Psychiatrists with these skills can more effectively perform and supervise relevant psychotherapeutic treatments, and more capably integrate them with pharmacotherapy, neuromodulation and lifestyle interventions. Psychotherapy skills also help psychiatrists better manage the dynamics of care teams. Learning core skills will continue to be an essential competency in residency. Acquiring these skills requires both clinical work and feedback from experienced supervisors. Having at least one supervisor be a psychiatrist promotes role-modeling, which helps to facilitate integration of psychotherapy skills with other psychiatric skillsets.

Psychedelic medicine may represent one area of recoupling pharmacotherapy and psychotherapy for the psychiatrist (37). Recent years have seen a renaissance in the study of psychedelic medicines like psilocybin and 3, 4-methylenedioxymethamphetamine (MDMA). Interestingly, while other psychiatric interventions frequently occur without accompanying psychotherapy (i.e., ECT, TMS), MDMA and psilocybin are being studied as a package with it (38). "Psychedelic-assisted psychotherapy" (PAP) is a natural home for the psychiatrist, with our unique training in both psychotherapy and high-level medical monitoring. PAP typically includes a framework

of psychological support built over preparation sessions, a drug administration session, and visits devoted to integration of the experience elicited by the drug. Many psychiatrists will likely partner with other providers to administer psychotherapy in individual or group settings, given the time intensity of this treatment. However, psychiatrists are an irreplaceable member of the PAP team.

As smart phone apps and AI become embedded features of our lives, these innovations have permeated the field of psychotherapeutic intervention. A meta-analysis demonstrated mixed evidence for the utility of stand-alone mental health apps (39). Challenges in understanding the efficacy of these apps include a largely unstudied digital placebo effect and evidence that their impact is likely moderated by human and clinician support. In contexts where psychiatrists may not be able to provide psychotherapy or a collaborating psychotherapist is unavailable, mental health resources delivered via apps may be a helpful adjunct. AI-based psychotherapy or chatbots are also still nascent, but a promising area of ongoing research. Still, early forays into chatbot-administered psychotherapy have been met with both ethical and efficacy concerns (40), perhaps most shockingly after a chatbot tasked with eating disorder treatment provided patients with weight-loss tips. However, as the further development of these technologies is assured, therapeutic outcomes achieved with AI augmentation of our psychotherapeutic efforts may 1 day surpass what we can accomplish unaided.

Integrated Care

Fewer and fewer psychiatrists practice in isolation. This is the result of a shift towards physicians as employees, the consolidation of healthcare systems and their acquisition of smaller practices. Additionally, the industry is moving away from fee-for-service models and towards value-based approaches, prompting systems to adopt roles integrating psychiatrists with other medical providers. Psychiatrists will need to adapt to this evolving landscape while advocating for a balance between efficiency, quality patient care, and our own satisfaction and wellbeing.

The business side of medicine has become more complex, with relative pay rates declining, office expenses rising in the face of inflationary pressures, and costs of purchasing and maintaining an EMR creating additional stress. Many providers, especially younger ones, do not want the administrative burden, and those in solo or small private practices are increasingly looking to leave. While in 2012, 30% of psychiatrists reported employment within a solo practice, that has dropped to 23% (41, 42). Meanwhile, the share of psychiatrists working within larger, multispecialty practices grew by >71%.

Amid these changes, psychiatrists' roles are expanding and transforming. Support of the Collaborative Care Model (CoCM) by payors represents a significant shift towards integrated, team-based approaches. The model, shown effective in treating depression, anxiety, and post-traumatic stress disorder within primary care settings, breaks down the historic silos between primary care providers and psychiatrists (43). The APA has played a critical role in this transformation, advocating for adoption of the CoCM, and training thousands in its use. This effort has enhanced mental health service delivery in under-resourced areas, and signified a broader change in practice. Beyond the CoCM, psychiatrists are increasingly engaging in other integrated environments, like clinics for women's health, cancer, and HIV, with psychiatrists working in tandem with other professionals to provide comprehensive care. These integrated approaches are not confined to outpatient settings. Some systems are innovating by incorporating psychiatrists into inpatient medical teams, marking a departure from the traditional consultation-liaison model (44).

While the rise of healthcare consolidation and the advancement of integrated care models are unfolding separately, the idea that larger systems will more effectively adopt these models and provide better care has not been established. Market consolidation may lead to less competitive environments, risking higher costs. It also could enhance the negotiating power of larger organizations, possibly affecting the autonomy and job satisfaction of psychiatrists, and the quality of care. Additionally, escalating involvement of private equity in healthcare consolidation places a heightened emphasis on efficiency, which may inadvertently lower psychiatrist satisfaction due to increased workloads and pressures. Navigating this terrain requires our advocacy to ensure a balance between efficiency, high-quality care, and psychiatrist wellbeing.

As the landscape becomes more interconnected, psychiatrists will increasingly become integral parts of larger systems. In shaping this future, psychiatry must continue to champion evidence-based integrated care models, like the CoCM, to maximize accessibility and effectiveness. Residency programs must evolve to prepare new psychiatrists for integrated environments, ensuring they are equipped to collaborate across multiple settings and lead and supervise integrated care teams effectively. We have seen adoption of an integrated care curriculum in at least 26 programs, but we must continue to build on this (45). Crucial to ensuring the robust participation of psychiatrists in this future will be a restructuring of the current payment system to incorporate more value-based payment arrangements allowing for dedicated psychiatric time to support this care model redesign.

Care for the Seriously Mentally Ill

Only 65% of Americans with a serious mental illness (SMI) receive treatment (46). Reasons include stigma, poor awareness of need for treatment, lack of available providers, and limited or unavailable care in justice and homeless service systems where many patients end up. Individuals with SMI need more comprehensive services than those mildly afflicted, given the complexity of their

illness and greater likelihood of experiencing adverse social determinants of mental health. Many with SMI need case and care management services to coordinate multiple service needs and optimize adherence. Novel approaches exist for providing this, although most rely on new cadres of mental health workers, who have much less training and no license or certification status. These providers may not have the tools to adequately understand and manage patients' needs. Finally, reimbursement models often fail to promote coordination and follow-up care. Community mental health centers and not-for-profit community-based organizations, the care system's backbone, typically operate on shoestring budgets and rarely have time or resources to implement innovative care models or comprehensive care management. Resources to address social determinants–housing, nutritional, and transportation supports–are often not reimbursable under state Medicaid or commercial insurance programs, necessitating navigation of multiple complex social services to cobble together comprehensive care plans.

States have implemented a wide range of approaches to funding and treatment resources for SMI. Examples of evidence-based models of comprehensive services include Coordinated Specialty Care for first-episode psychosis, Assertive Community Treatment for the difficult-to-engage, and Certified Community Behavioral Health Clinics. These programs are typically funded using cost-based or bundled payment systems and fill important gaps for specific populations using approaches that integrate medical, psychiatric, and recovery-oriented services. Psychiatrists must play a critical role in supporting these models and ensuring those with SMI receive adequate care as public systems evolve. Too often, the psychiatrist is pressured to function solely as prescriber within these multi-disciplinary teams. However, it is imperative psychiatrists resist functioning only in this narrow role.

We call for several measures to define and promote the role of the psychiatrist in future public mental health systems. Psychiatry must maintain rigorous standards for training in comprehensive assessment and treatment approaches, as the only discipline that prepares practitioners to conduct such assessments ensuring a whole-person orientation. This foundation of the psychiatrist's professional identify must be preserved and emphasized. We are trained broadly in medical, psychological, and sociological approaches to understanding behavior and treating mental conditions. Residencies should resist efforts to limit training and focus narrowly on medical models and medical management. Residents should also be trained in leadership and management skills to support our roles as multi-disciplinary team leaders and supervisors. Such training, widely available to business students, has not historically been offered to psychiatric trainees. Residents should receive training in mental health services organization, financing, and policy, as we must be aware of the complex incentives inherent in large payor programs. Currently 26 public and community psychiatry fellowships provide this training. There could also be an avenue for joint residency and Master of Public Health or Public Policy degrees. More infrastructure is needed to prepare our workforce for the leadership roles of the future.

Psychiatry needs to uphold its legacy as steward of public mental health systems. Psychiatrists play a pivotal role in advocating for the needs of the most vulnerable patients, and educators and leaders should encourage engagement with them through promoting opportunities for flexible and blended work experiences. Spending most or all of one's time in a particular niche can be a recipe for burnout. Blended roles as clinician/supervisor, team leader/consultant, and researcher/clinician should be encouraged. Those who prefer a solo practitioner private practice should also be able to work part-time in a public mental health or other organized setting to remain connected to a community of peers. These opportunities leverage the psychiatrist's broad expertise and lessen the likelihood of becoming disenchanted and burned out.

DISCUSSION

We have envisioned changes in the future role of the psychiatrist to meet the demands of the evolving landscape in digital data and precision medicine, MBC, AI, psychotherapy, integrated care, and care for SMI. Some of these represent a re-emphasis of enduring roles, like psychiatrists as leaders of teams treating SMI patients, reminiscent of the "alienist" role present at the APA's creation. Dedication to that population should be central to our identity, and training to lead teams and understand mental health systems and policy can facilitate our effectiveness in that vein. Our role as psychotherapist recalls the era of psychodynamic primacy. Training in psychotherapy essentials must remain part of our identity because it is critical to any therapeutic relationship, and necessary for us to competently supervise others providing this treatment. The future we envision for integrated and MBC derives from the current post-DSM-III era, where we function as physicians steeped in a medical model. Within integrated care, we will work at the intersection of psychiatric and somatic care, with other physicians, and also maximize the value of other mental health professionals to extend our reach. Measurement-Based Care builds on norms established across medical disciplines, where disease and outcome monitoring are accomplished quantitatively, providing clear indications of whether treatments are working or need adjustment. Thus, in several ways we see the psychiatrist's future role as having ample continuities with our past.

The most novel areas impacting our future role are digital data and precision medicine, and AI. The former will provide improved information about how patients fare between visits, and objective measures heretofore unavailable that may be able to drive more personalized and even

TABLE 1. Areas of new developments impacting the future of the psychiatrist's role and their implications for training, practice, policymaking and advocacy.[a]

	Residency training	Practitioners	Policymakers and advocates
Digital data and precision psychiatry	Training essential, & will require education about inherent risks & mitigation of them	Make use of tools like APA's digital mental health 101 document and APA App Advisor	Privacy and security must be central elements informing the optimal use of mental health apps
Measurement-based care	Education needed on strengths and weaknesses of available scales	Take advantage of clinician's handbook on MBC (49) and PsychPro Registry	Embrace measurement-based approaches to psychiatric care
AI	Need updating of curricula to provide learners with critical skills necessary to evaluate AI tools; must teach trainees to vet AI-generated information & not hand over clinical decision-making to it	Research reliability of using AI to improve note writing, billing, & collaborative care, & whether AI can be leveraged for predictive analytics in mental health	Psychiatrists should play a role in guiding AI's development & deployment and regulation; encourage study of public mental health impacts of AI access
Psychotherapy	Training should include didactics, clinical cases with supervision, and experience of integration with digital therapeutics, pharmacotherapy, and novel medications, for example, ketamine and psychedelics	Engage with professional advocacy organizations like APA to address legislative and regulatory challenges to practicing psychotherapy in a range of psychiatric settings	Increase patient access to the full scope of psychiatric practice by improving mental health parity enforcement tools and reducing other systemic and structural barriers to care
Integrated care	More residencies should adopt curriculum in this area	Use APA's free training in the CoCM	Support consolidation for improved coordination of care, but recognize high efficiency can drive burnout & diminished quality of care
Team-based care for SMI	Train broadly in comprehensive assessment & treatment skills; train in leadership skills; include education in mental health services	Utilize APA resource for SMI care, SMI Adviser	Regulations facilitating working both in private & public settings should be encouraged, to enrich psychiatrists' experience & increase access to care

[a] AI, artificial intelligence; APA, American Psychiatric Association; CoCM, Collaborative Care Model; MBC, measurement-based care; SMI, serious mental illness.

preventive care. Integration of these data into clinical care will require new algorithms and approaches, but there are already emerging examples (47). They will likely inform diagnostic and treatment choices in more precise ways than currently achievable. AI systems might soon integrate data from mobile devices, the EMR, and biological assays to generate solid suggestions about diagnosis and treatment. In the near future we need to think critically about AI-generated results, as quality of inputs may vary, and the models' black box elements may cloud their value. We must also guard against the degradation of the unique power of the healing relationship we often have with our patients (48).

There are trends relevant to our future role we did not address, largely out of space considerations. Interventional psychiatry should see continued growth and relevance, with the development of new approaches like the SAINT protocol for accelerated TMS that employs fMRI-guided, high-dose treatment of major depressive disorder in a 5-day framework (49), but we were less certain this would have new implications for the psychiatrist's role. Psychiatric genetics and neuroscience will continue to progress, providing crucial mechanistic understanding of our disorders, and potentially pointing the way towards new treatments. Important as this is, its impact on most psychiatrists will be indirect, and it is best covered separately, where it can be done full justice.

The points made have implications for residency training and practicing psychiatrists (Table 1). Residencies should continue to train broadly in comprehensive assessment and treatment skills. Psychotherapy instruction should continue, with novel aspects, like use of adjunctive computer-based or AI-based psychotherapy worked in, potentially along with PAP. Training in digital psychiatry and AI will be essential, and require education about their inherent risks and mitigation of them. More residencies should adopt an integrated care curriculum. Psychiatry residents should train in leadership skills and be educated in mental health services. We recognize these changes are not easily accomplished, given the multiple competing priorities in the training curriculum. Many practicing psychiatrists have begun moving in these directions, while others will benefit from continuing education. The APA has available programs related to most of these: a digital mental health 101 document and *APA App Advisor*, a clinician's handbook on MBC (50), the *PsychPro*

Registry offering tools for things like tracking patient outcomes, free training in the CoCM, and a resource for SMI care, *SMI Adviser*.

For institutions and policy makers, and psychiatrist advocates hoping to influence them, these future directions require action on several fronts. Payors and policymakers should embrace measurement-based approaches to psychiatric care. This will add value for patients, credibility to our practice, and support as the field moves towards value-based payment. They should support consolidation for improved coordination of care, but recognize high efficiency can drive burnout, and diminished quality in psychiatry, as good care requires time. Regulations facilitating working both in private and public settings should be encouraged, to enrich psychiatrists' experience and increase access to care. As AI races forward, caution should be exercised around its regulation for use in mental health, and psychiatrists should play a role in guiding its development and deployment. While there is enormous complexity to the particular policies and regulatory proposals that will play out across federal and state jurisdictions, psychiatrists must be at the table as leaders on all of these issues, and more. We must advocate for the future we envision.

CONCLUSIONS

The role of the psychiatrist has undergone transformations over time, and our role will continue to evolve in response to changes in technology, workforce, and economics. We must take primary responsibility for the severely mentally ill, and lead and supervise teams deployed in integrated care, community, and inpatient settings. As leaders we need to handle the most challenging cases: the most psychiatrically complex, medically complex, and treatment-resistant. We must preserve our skill, unique among physicians, in psychotherapeutic approaches, even as we manage psychiatric disease. We must also adapt and become more tech-savvy, as digital data, MBC, mobile and computer-based treatments, EMRs, and AI algorithms take on increasing prominence in our field. We must position ourselves to take best advantage of these tools, which have the potential to extend our reach and improve outcomes for our patients.

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The work by Dr. Potash was supported by gifts from the Bessemer Trust. The authors report the following financial relationships with commercial interests. Dr. Torous is an adviser to Precision Mental Wellness and has received investigator-initiated research support from Ostuka. Dr. Carroll is a content advisor for Insite Health, Inc. This article is derived from work done by the workgroup on the Future of Psychiatry, from the American Psychiatric Association's Council on Healthcare Systems and Financing. The findings, opinions, and conclusions of this report do not necessarily represent the views of the officers, trustees, or all members of the American Psychiatric Association. The views expressed are those of the authors. The authors gratefully acknowledge the contributions of staff of the American Psychiatric Association including Agathe Farrage and Esther Gershenson, and of illustrator Joan Tycko.

Data sharing not applicable to this article as no datasets were generated or analyzed during the current study.

Received October 23, 2024; revised January 5, 2025; accepted January 14, 2025.

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