ARTICLE IN PRESS

Advances in Psychiatry and Behavioral Health ■ (2023) ■–■

ADVANCES IN PSYCHIATRY AND BEHAVIORAL HEALTH

Advances in Child Psychiatry Education and Training

Afifa Adiba, MD[a,b,c,*], Shawn Singh Sidhu, MD, DFAPA, DFAACAP[d], Deepika Shaligram, MD[e], Manal Khan, MD[f,1], Zheala Qayyum, MD, MMSc[g]

[a]Sheppard Pratt Health System, Towson, MD, USA; [b]University of Maryland, 6501 North Charles Street, Baltimore, MD 21204, USA; [c]Yale School of Medicine, New Haven, CT, USA; [d]Division of Child and Adolescent Psychiatry, Department of Psychiatry, University of California San Diego Medical Center, UCSD Medical Center, Rady Children's Hospital of San Diego, 2125 Citracado Parkwy, Escondido, CA 92029, USA; [e]Boston Children's Hospital, Harvard Medical School, 9 Hope Avenue, Waltham, MA 02453, USA; [f]University of California, 300 Medical Plaza Driveway, Los Angeles, CL 90095, USA; [g]Harvard Medical School, Yale School of Medicine, 300 Longwood Avenue, Boston, MA 02115, USA

KEYWORDS

• Child psychiatry • Training and education • Advance in child psychiatry

KEY POINTS

- The article focuses on advancing child psychiatry and child psychiatry training to prepare future child psychiatrists for the challenges of the field.
- Incorporating a holistic approach to evaluating child psychiatry fellows by emphasizing the importance of maintaining humanity in medicine and assessing competencies beyond clinical skills.
- Providing comprehensive training for child psychiatry fellows in evidence-based treatments for trauma, exposure to maternal/parental mental health and early childhood intervention clinics, cultural humility, gender-affirming interventions, and trauma-informed care principles to prepare them for the evolving field of child psychiatry.

INTRODUCTION: CHILD AND ADOLESCENT PSYCHIATRY—A FIELD OF HOPE

The field of child and adolescent psychiatry (CAP) can be summarized in a singular, powerful, and all-encompassing word: "hope." "Hope" that children and families who have been suffering emotionally for generations will finally begin to heal. "Hope" that the shackles and bondages of trauma can be released, so that people can live freely and fully. "Hope" that we can partner with communities to prevent at-risk youth from developing chronic, lifelong conditions that significantly alter the trajectory of their lives. "Hope" that we can remove barriers such as systemic racism and discrimination, such that children and their families can thrive regardless of their gender, race, ethnicity, religion, sexual preference, citizenship status, or other identifying characteristics.

If child and adolescent psychiatrists ultimately specialize in "hope," then our metaphorical stethoscope must be core values of love, emotional intelligence, empathy, compassion, equity, patience, inclusion, openness, passion, and justice. Without fully embodying these values, neither will we be able to access the inner world of a child and their family nor will we have the determination to confront recalcitrant systems or the courage to advocate for innovations that affect countless lives. We

[1] Present address: 300 Medical Plaza Driveway, Los Angeles, CA 90095, USA.

*Corresponding author. 6501 North Charles Street, Baltimore, MD 21204. *E-mail addresses:* afifa.adiba@sheppardpratt.org; afifa.adiba@yale.edu

https://doi.org/10.1016/j.ypsc.2023.03.006
2667-3827/23/

also cannot do this alone. Our ability to act as change agents in our communities largely depends on our ability to build bridges and alliances with a broad range of partners, all the while challenging ourselves to improve access to care and reach children and families where they are.

The following article first summarizes the national state of affairs in CAP, before introducing advancements in theoretical frameworks, concrete recommendations for training, and future directions. It is our "hope" that this article might inspire our colleagues to push the boundaries of education and training for a better today and brighter tomorrow; meanwhile, honoring and doing justice to the youth and families whom we serve.

PRESENT STATE OF AFFAIRS

In this section, we will provide a brief historical background of CAP training in the United States, followed by an up to the minute discussion of current trends.

Brief Historical Background

The field of CAP is a relatively new medical specialty that originated in Europe and the United States during the late 1800s and early 1900s [1]. In Germany, physicians gained training in child psychiatry through schools founded by Johannes Trüper, Theodor Ziehen, and Wilhelm Strohmayer [2]. Hermann Emminghaus published the first German overview of emotional problems in children, "Mental Disorders of Childhood," in 1887, while Moritz Tramer defined CAP in terms of diagnosis, treatment, and prognosis in 1933 [3].

In the United States, Leo Kanner founded the first academic child psychiatry department in 1930 at the Johns Hopkins Hospital, where he established the first formal elective course in child psychiatry in 1936. The Institute for Juvenile Research, founded by Jane Addams and her colleagues in Chicago in 1909, became the world's first child guidance clinic [1]. In February 1923, The Maudsley, a psychiatric hospital in London dedicated to postgraduate teaching and research, established a modest psychiatry department to cater specifically to children. Similarly, the early development of child psychiatry training took place in numerous countries in between 1920 and 1930 [4].

The development and training in the subspecialty of CAP in Europe hails from diverse historical traditions, including the neuropsychiatric, remedial clinical, psychoanalytic, and empirical, epidemiologic, and statistical traditions, depending on specific countries [5]. Efforts to unify clinical practice and training across Europe date back to the first symposium of the European Child and Adolescent Psychiatrists in Switzerland in 1954 and continue with the current European Society for Child and Adolescent Psychiatry. National organizations representing CAP are present in more than 90% of European countries, with more than half having CAP training organizations as part of general psychiatric organizations but there are still some European countries without formal CAP training programs [6].

CAP was recognized as a medical specialty in the United States in 1953 with the founding of the American Academy of Child Psychiatry and established as a board-certified medical specialty by the American Board of Psychiatry and Neurology (ABPN) in 1959. The founding of the Accreditation Council for Graduate Medical Education (ACGME) in 1981 then provided standardization of training guidelines and expectations within CAP. Although the early years of CAP were imperative and formative, they also included controversies such as prolonged institutionalization, lobotomization, paternalism without patient autonomy, overmedication within the foster care system, pathologizing of sexual and gender minorities, racism, sexism, discrimination, and overdiagnosis of bipolar disorder in child and adolescent populations.

Modern Trends Following the Turn of the Century: Media Use, COVID-19, and the National State of Emergency in Child Mental Health

The turn of the century saw the increasing utilization of broadband Internet technology [7] followed by the release of the first-generation iPhone in 2007 [8,9]. Although these 2 inventions fundamentally changed the daily lives of children and adolescents, they also shaped the trajectory of the human experience indefinitely.

Concurrently, since the turn of the century, rates of child and adolescent depression, anxiety, autism, and suicide have increased. Yet, at the same time, rates of substance use, automobile accidents, and teen pregnancy have declined. Although the causes of these trends are likely multifactorial, some have posited that the sizable presence of screen time in the lives of teens has displaced both healthy and unhealthy activities. The displacement of face-to-face contact with others and resultant social isolation and withdrawal may have contributed to increases in depression, anxiety, and suicide; meanwhile, the displacement of high-risk behaviors has resulted in a decline in substance use, automobile accidents, and teen pregnancy [10]. Although some studies have linked increased media use to social comparison and depression in teens, other data suggest that media use with real-world relationships is promoting health, and minority teens

also report a sense of community online that they never had before [11]. Rates of depression, anxiety, and autism also may be increasing due to greater awareness, early identification, and decreased stigma associated with these conditions.

In 2020, the world saw its first pandemic in a century, and the COVID-19 infected almost a billion individuals globally, while claiming the lives of nearly 7 million people around the world by February of 2023 [12]. The pandemic, and associated quarantines and social isolation, only furthered the increase of depression, anxiety, school difficulties, and social difficulties in youth [13–15].

Meanwhile, there continues to be a shortage of child and adolescent psychiatrists nationally. As of 2022, there were approximately 8300 child and adolescent psychiatrists in the country, when it is estimated that 35,000 are required to meet the needs of the youth and families whom we serve (AACAP, 2022). Given the increases in rates of child and adolescent depression, anxiety, and suicide, and given the relative paucity of emergency department and inpatient CAP beds across the country, the American Academy of Child and Adolescent Psychiatry, American Academy of Pediatrics, and Children's Hospital Association declared a National State of Emergency in Child and Adolescent Mental Health in October of 2021 [16]. This prompted President Joe Biden's White House to announce a strategy to address the national mental health crisis, including an increase in mental health funding [17].

ADVANCES IN THEORETICAL FRAMEWORKS

The past 20 years have also seen a number of movements that have profoundly affected societal thought on critical social topics. Awareness of increasing rates of physician suicide in both trainees and attendings has furthered the discussion on the crisis of physician burnout. The murder of George Floyd spurred the *#BlackLivesMatter* movement, which swept the nation and the entire world, from individual households to the largest corporations. The *#MeToo* movement and advocates such as Malala Yousafzai shed light on sexual assault and human rights violations against women of all races, ages, and statuses, whereas the physician-led *#ThisIsOurLane* movement raised awareness about the physical and emotional damage caused by firearm violence. In 2018, then 15-year-old Greta Thunberg captured the world's attention when delivering a speech to the United Nations on climate change. All of these movements have been so powerful that their so-called trickle-down effect has affected all spaces, including training and education in CAP.

In this section, we will examine advances in theoretical constructs regarding CAP training, including physician burnout; prevention and access to care; diversity, equity, and inclusion (DEI); and trauma-informed care.

Physician Burnout

Unfortunately, physician levels of burnout remain high, and some reports suggest they have only increased with the COVID-19 pandemic [18].The causes of physician burnout seem multifactorial and include expectations for round-the-clock coverage, burdensome documentation, countless mandates and regulations, isolation in practice, separation from loved ones, difficulty in attaining work–life balance, moral injury, recalcitrant and bureaucratic health systems, dogmatic billing and coding practices, delayed gratification, financial debt, and a loss of meaning in medicine. As a result, rates of physician suicide far exceed those of the general population, and are especially high for female physicians who suffer from dual role stressors and decreased compensation compared with men [19,20]. Psychiatrists in particular report higher rates of substance use disorders and divorce than other specialties in medicine.

The ACGME has implemented a series of sequential changes aimed at reducing physician burnout, including both a reduction in duty hours and a mandate that all programs include wellness programming and education on topics such as burnout and sleep deprivation. However, despite these efforts, rates of burnout remain high in medical trainees.

Prevention, Early Identification, and Access to Care

Although the first few decades of CAP focused more on describing clusters of clinical symptoms and the study of evidence-based psychotherapies and pharmacology, the importance of prevention, early identification, and access to care has been an increasing presence and focus of the field in recent years. Even mainstream politicians, such as Elizabeth Warren, have begun emphasizing the importance of early childhood experiences and their downstream effects. New health systems have emerged, such as federally qualified health centers and capitated health systems (Kaiser Permanente), which not only prioritize but also reimburse physicians based on their ability to keep patients healthy and out of higher levels of care; however, the vast majority of health systems continue to operate under a fee-for-service model,

which incentivizes larger payments for higher levels of care and procedures.

Diversity, Equity, and Inclusion

DEI efforts have become a clarion call in CAP training, due in part to the resounding voices of the #BlackLivesMatter and #MeToo movements. As new research aims to ensure that a diverse patient population is being reached, the ACGME is mandating that all programs provide training in health disparities. However, the lack of diversity in CAP remains a concern, with medical schools and residency programs searching for ways to attract and retain underrepresented minorities and women.

The ACGME and the Liaison Committee on Medical Education are also requiring programs to provide information about their DEI policies and procedures for interviewing and ranking applicants. This is all the more important because the US population is diverse, and a lack of diversity among physicians means that many patients do not have access to care that reflects their cultural and social backgrounds. For example, only 5.0% of physicians identify as Black [21], whereas Black Americans make up 12.2% of the US population. By embracing diversity, we can foster physician–patient relationships that yield better outcomes for minority and minoritized patients and ensure that everyone has access to the care they need.

Gender-Affirming Care

In recent years, child psychiatry has undergone a remarkable transformation, embracing gender-affirming care for transgender and gender nonbinary individuals. This groundbreaking approach acknowledges the challenges faced by these communities, from discrimination to limited access to health care [22]. Yet, despite a growing body of evidence supporting the effectiveness of these interventions, the political and legislative landscape remains fraught with obstacles. Several states have proposed or enacted laws that impede access to gender-affirming care for youth, leaving child and adolescent psychiatrists to navigate a complex and often hostile legal environment while striving to provide optimal care for their patients.

Despite these challenges, medical and psychiatric organizations have been steadfast in their advocacy, promoting access to evidence-based care and standing up for the rights of transgender and gender nonbinary individuals. As we continue to learn more about the benefits of gender-affirming care, we can envision a future in which all children and adolescents, regardless of their gender identity, receive compassionate, personalized care tailored to their specific needs.

Patient Autonomy and Trauma-Informed Care

As the era of paternalism comes to a close, the field of medicine is realigning its ethical priorities toward increases in patient autonomy and education. This coincides with the acknowledgement that many of our patients, particularly in CAP, have experienced adverse childhood experiences (ACEs) and a loss of control in their lives secondary to life-altering trauma. The principles of Trauma-Informed Care seek to empower patients so that they feel in control of their health-care experience and are treated with the basic human compassion and respect that they deserve.

CONCRETE RECOMMENDATIONS FOR ADVANCES IN CHILD AND ADOLESCENT PSYCHIATRY EDUCATION AND TRAINING

In this section, we provide concrete recommendations for advances in CAP education and training based on the aforementioned state of affairs and theoretical constructs.

Core Values and Competencies

The ACGME mandates that CAP fellowship programs systematically evaluate all fellows twice yearly, using the ACGME Milestones as a guide. The Milestones have undergone several revisions, and future directions include CAP following suit with the rest of medicine in creating Entrustable Professional Activities for which fellows can be evaluated.

However, relatively less discussion has encouraged thinking more broadly about how we evaluate CAP fellows. That is, what exactly are we wanting our fellows to be able to do for their patients and their communities when they graduate, and how are we measuring that? How do we train fellows in and evaluate core values of love, emotional intelligence, empathy, compassion, equity, patience, inclusion, openness, passion, and justice? Although the ability for fellows to navigate an electronic health record is certainly a requirement in modern medicine, should that carry the same weight as humanistic factors?

To cultivate the next generation of child and adolescent psychiatrists, our recommendation is that training programs must take a holistic approach to evaluating their fellows. It is not just about clinical competence—it is about fostering an open-minded and inclusive environment. We recommend evaluating fellows on their efforts to include others in treatment decisions and consider how they see themselves as part of a broader community. It is also important to assess their

ability to break down nonverbal communication, provide validation, and create a welcoming environment for a diverse range of youth and families, peers, colleagues, and staff. Ultimately, fellows should be evaluated on their ability to maintain their humanity in the practice of medicine. By broadening the scope of evaluations, we can ensure that our fellows are truly prepared to provide the best possible care to a diverse range of patients. So let us embrace a more holistic approach to training the next generation of child and adolescent psychiatrists, one that recognizes the vital importance of empathy, inclusion, and humanity in the practice of medicine. Together, we can create a future where all patients, regardless of background or identity, receive care that is both clinically competent and deeply compassionate.

Prevention, Early Identification, and Referral to Treatment (Subheading)

The aforementioned increase in awareness about prevention and early identification should shape the way we think about education and training in CAP. At a bare minimum, fellows should understand the research conveying the importance of early childhood intervention. However, ideally training would also include critical and high-quality clinical experiences in maternal/parental mental health and early childhood intervention clinics. In this way, fellows will have direct experience working with the parents of unborn children, while also helping families with children in the 0 to 5 years age range who are struggling. These clinical experiences will help to ensure that CAP fellows are trained to care for children throughout the life span, from conception to transitional age.

Fellows should also be trained not only in the use of screening questionnaires but also in the broader systemic implications of identifying at-risk youth and families early and then subsequently linking those families to services in the community. As every child is situated within the strengths and challenges of their family system, it is essential for training in CAP to encompass skills that enable working with families to facilitate primordial and primary prevention, diagnostic processes, and therapeutic interventions (including psychopharmacology).

Trauma Informed Care—Adverse Childhood Experiences, Humanism/Compassion, Mistrust of Authority Figures

A broader awareness of ACEs in the medical community and universal rejection of paternalism has resulted in the Trauma-Informed Care movement, which is a systematic approach that assumes that both patients and staff are more likely to have a history of trauma than not, and it acknowledges the role that trauma may play in their lives [23]. It also acknowledges a mistrust in the medical system and/or authority figures that may have developed during the course of generations. The guiding principles of trauma-informed care include safety, trustworthiness or transparency, choice, collaboration, and empowerment. It involves not only the direct care of patients and their families but also reception desk staff involvement, telephonic and electronic communications, forgiving clinic policies, a clinic environment that emphasizes healing and minimizes retraumatization, and a safe, clean, and soothing physical space and esthetics.

In addition to learning about the broader systemic implications of trauma-informed care, fellows must be trained in evidence-based treatments for trauma. These include but are not limited to pharmacotherapy and cognitive behavioral therapy (CBT), eye movement desensitization and reprocessing, prolonged exposure therapy, narrative exposure therapy, trauma-focused cognitive behavioral therapy (TF-CBT), dialectical behavioral therapy (DBT), somatic experiencing, attachment-based therapy, and mindfulness-based stress reduction and trauma informed family therapy. Although CBT, TF-CBT, and DBT are commonly included in fellowship curricula, having a broader range of tools can aid in creating a sense of safety, providing choice and control, and fostering empowerment and collaboration for patients. With training in trauma therapy, child psychiatry fellows can effectively incorporate trauma-informed care into their practice, resulting in better outcomes for the patients.

Gender-Affirming Care: Gender Identity, Countertransference, Introspective Approach

Gender is a multifaceted construct influenced by biology, experiences, desires, conflicts, culture, and societal norms. Gender-affirming care provides a mosaic of social, psychological, and medical interventions to support transgender and gender nonbinary individuals [24]. Research shows that social transitioning can normalize depression and alleviate anxiety symptoms for transgender children [25].

Because more young people explore their gender identity, child and adolescent psychiatrists must be attuned to their unique challenges. Training programs should provide knowledge of pubertal suppression, hormone therapy, and surgery while encouraging a multifaceted and introspective approach. To provide the best care possible, psychiatrists must examine their

own biases and countertransference reactions. By embracing a nuanced and inclusive approach to gender, we can cultivate a vibrant mosaic of individuals, all celebrated for their unique identities.

Diversity, Equity, and Inclusion —COVID Worse, Burnout Worse, Trauma, Mistrust

Unfortunately, underrepresented communities continue to be disproportionately affected by health disparities, as demonstrated by increased deaths and decreased vaccination rates during the COVID-19 pandemic. Decades of institution and systemic racism have resulted in a mistrust of authority figures and the medical community for some underrepresented individuals. Gender minorities and women also continue to have disproportionately higher rates of mental health concerns. Within medicine, women and minorities are more likely to experience discrimination and burnout while being considered for higher positions far less frequently than their counterparts. Future CAP fellows need to be aware of the impact of racism and discrimination both within medicine and in terms of the impacts on our patients.

Cultural humility is a model that should be front and center in all CAP training programs. Cultural humility is a lifelong endeavor to develop intercultural communication skills, respect, and lack of superiority regarding cross-cultural differences to enhance therapeutic relationships. It complements "structural competency," which examines forces influencing health outcomes above individual interactions [26]. To promote a culturally sensitive systems-based approach, the American Academy of Child and Adolescent Psychiatry has developed a Diversity and Cultural Competency Curriculum for Child and Adolescent Psychiatry Training and a Practice Parameter on Cultural Competence in Child and Adolescent Psychiatric Practice [27,28].

The AACAP Diversity and Cultural Competency Curriculum recommends specific skills, including effectively interviewing and communicating with children and families of different cultural backgrounds, formulating diagnoses that include cultural dimensions, formulating culturally sensitive treatment plans, providing culturally specific psychotherapeutic and psychopharmacological interventions, advocating for access to mental health services for all children in need, and understanding cross-cultural dynamics [28].

Child psychiatry training should teach the skills of assessing experiences with bias and prejudice and place these, along with the presenting symptoms, in the context of developmental stages of diverse youth. Approaches that increase cultural humility, invite dialog about experiences of discrimination, and tailor psychoeducation to explanatory models of illness can improve family engagement and treatment outcomes [29].

Training should also include strength-based approaches to working with diverse families that recognize the protective effects of bicultural or multicultural identity to promote psychological well-being [30]. Trainees need to be aware of culturally informed child-rearing practices, behavior expectations, communication patterns, and acceptable coping skills to avoid diagnostic pitfalls and foster engagement. Adjunctive training in public health analysis, advocacy skills, and collaborative approaches with individuals with lived experience, parents, and caregivers are needed to disrupt systemic/structural barriers and create patient-friendly care systems [31].

The evaluation of developmental competencies should include competencies specific to the experiences and strengths of diverse youth and families, including the impacts of individual and institutionalized racism, implicit bias and prejudice, as well as flexibility in straddling bicultural identities [32].

In addition to implementation and training in cultural humility, both trainees and practicing child and adolescent psychiatrists need to directly engage and involve underrepresented minorities in discussions regarding mental health services. This means creating collaborative relationships with local cultural grassroots and nonprofit organizations, including churches, schools, legal centers, cultural centers, job training centers, immigration centers, health-care clinics, or other entities committed to underrepresented groups. This type of collaboration elevates the voices of underrepresented minorities as true stakeholders with the ability to make decisions that affect their health care and communities.

Access to Care and Integrated Care—Including Telehealth, Integrated Care

Given the shortage of child and adolescent psychiatrists, training is the optimal place and time in professional development to engage learners in solutions to address access to care. A myriad of solutions have been proposed, and some have been studied, to provide a greater amount of support to a larger number of youth and families in need. Broadly, these solutions can be broken down into (1) providing direct services to children who have reduced access, and (2) utilizing a "multiplier effect" to extend the knowledge and expertise of child and adolescent psychiatrists to other providers.

Efforts to provide direct services to children who have reduced access include the utilization of telehealth

and integrating with other child-facing systems. The COVID-19 pandemic paved the way for many health-care institutions, organizations, and private practices to modernize in telepsychiatry, and the majority of training programs now provide clinical experiences in telehealth. Similarly, in working closely with schools, juvenile justice, foster care, group homes, child protective services, and other child-facing programs, child and adolescent psychiatrists can remove barriers to treatment by visiting the children where they are.

The greatest effort to use a "multiplier effect" is through training and consulting with other health-care providers who can then go on to treat an exponentially larger sum of youth. Given the shortage of child psychiatrists, pediatric primary care providers (PPCPs) are increasingly at the forefront of managing mental health conditions [33]. Collaborative care models (CCMs) between PPCPs and child psychiatrists can provide PPCPs with the necessary support to deliver mental health services [34].

The standard framework for levels of integrated care, developed by the Substance Abuse and Mental Health Services Administration and the Health Resources and Services Administration, conceptualizes integration as a continuum ranging from separate mental health and primary care systems with minimal coordination to integrated systems, in which mental health clinicians and PPCPs function as a team in a shared practice setting. Elements used to characterize the level of integration include (1) communication (frequency and type), (2) practice location (on-site, off-site, and remote), and (3) practice change (eg, shared workflows and medical records systems) [35].

The US Surgeon General's report in 2021 recognizes the importance of CCMs and recommends the expansion of Pediatric Mental Health Care Access (PMHCA) programs, which provide PPCPs with teleconsultations, training, technical assistance, and care coordination to support the diagnosis, treatment, and referral of children with mental health and substance use needs [36]. Integrated care, especially CCMs, has been shown to improve mental health outcomes for children and adolescents when compared with standard care [37]. The most commonly reported components of effective pediatric integrated mental health care models associated with the clinical improvement of mental health symptoms are (1) population-based care, (2) measurement-based care, and (3) delivery of evidence-based mental health services [38].

Thus, in CCMs, child and adolescent psychiatrists (CAPs) are called on to build the knowledge and skills of PPCPs to manage mild-to-moderate pediatric mental health issues in primary care and conserve the scarce child psychiatry resources for patients with more complex and severe conditions. The first PMHCA program, Massachusetts Child Psychiatry Access Program, was established in 2004 and covers more than 95% of the state's youth [39,40]. It has since been replicated in 46 states across the United States and seen increased utilization during the pandemic [41].

Because CCMs differ from traditional mental health practice and require robust consultative skills that are not routinely taught in current child psychiatry training [42], it is essential to formalize a child psychiatry curriculum and establish competency requirements [43]. Approximately one-third of US child psychiatry fellows receive didactic teaching and/or clinical exposure to integrated care models. During these rotations, trainees learn to function as a consultant to multidisciplinary professionals while building their communication, consulting, and system analysis skills [44]. The triple board and postpediatric portal program trainees, due to their inherent combined pediatric/psychiatric training, are well prepared for leadership positions on integrated care teams [45]. A novel integrated behavioral health rotation for CAP fellows described by Njoroge and colleagues [46] illustrates the application of the 6 ACGME core competencies to the practice of integrated care in child psychiatry in Table 1.

Interdisciplinary training experiences are recommended for trainees in the medical and psychiatric fields to complement their competency areas. To optimize pediatric mental health care and promote collaboration between child psychiatrists and PCPs, a standardized, case-based curriculum covering important topics in the management of medical and psychiatric comorbidity was developed with the support from the American Academy of Child and Adolescent Psychiatry and the American Academy of Pediatrics (AAP). This curriculum consists of 3 case-based educational modules that were pilot-tested and evaluated as a part of the "Collaborative Essentials for Pediatric and Child and Adolescent Psychiatry residents: Working Together to Treat the Child" project [47].

One child psychiatry fellowship program based in Massachusetts mandates a 10-week integrated care rotation (half-day per week) during their first year of training. Fellows engage in-person and virtual consultations in the primary care clinic and perform electronic chart reviews to develop the skills of conducting a focused, time-limited evaluation that informs assessment, treatment plan documentation, teaching, and case review with PPCPs. The rotation emphasizes the unique skills of CAPs in integrated care models, such

TABLE 1
Application of Accreditation Council for Graduate Medical Education Core Competencies to Integrated Care in Child Psychiatry

Competency	Description
Interprofessional communication	Encouraging shared decision-making for effective team-based care
Professionalism	Establishing ethical and professional guidelines
Integrated care systems practice	Understanding primary care context and professional roles
Practice-based learning	Collaborating with other disciplines, evidence-based practice, quality improvement
Preventive screening and assessment	Identifying emerging behavioral health conditions and assessing patient outcomes
Cultural competence	Collaborating within diverse communities, understanding barriers to treatment, and the psychosocial determinants of health

as measurement-based care, short-term and goal-oriented treatment, and partnering with PPCPs, which may not be the focus of training in other settings [48].

Advocacy and Leadership

Child and adolescent psychiatrists are optimally positioned to become change agents in their communities. Although psychopharmacology and psychotherapy are certainly the mainstays of basic child psychiatry training, and while the fundamentals of assessing a broad range of patients and creating an evidence-based treatment are the building blocks of our practice, trainees should be encouraged and empowered to see themselves as capable of making transformative changes that can reach many more patients than they could ever see individually in their offices.

Child and adolescent psychiatrists are trained to understand not only children and their family units but also the myriad of systems, which are exposed to children and their families. These include but are not limited to health care, school/education, juvenile justice, foster care, child protective services, developmental disability services, immigration settings. As a result, child psychiatry input is relevant to anything and everything that involves social change in the fabric of our society.

One vehicle through which child psychiatrists can affect change is public education. CAP trainees often take their breadth and depth of knowledge for granted, and may feel "imposter syndrome" or a sense that they do not have anything to offer to the public. Yet, most children and their families have never been given this same knowledge, and many may think as if they are throwing proverbial darts in the dark. Thus, even the most basic knowledge about core topics in child psychiatry can be highly valuable to the public. This could include anything from simply explaining why it is important for parents to spend face-to-face, one-on-one time with their children in the busy digital age to a nuanced explanation of neuronal circuits.

Media collaborations can be an efficient and effective means to deliver public education. There are a multitude of media formats that remain relevant today, and thus child psychiatrists can tailor their messaging to forms of the media that enhance their strengths. Those who are strong writers can write for their local institution's blog or newsletter, the local newspaper, or even national outlets. Those who are strong speakers can contact their local news channels and pitch poignant and compelling news stories. Those who are connected in social media can begin spreading awareness and collectively reach broader audiences. Ultimately, most patients do not read scientific journals independently but they do universally consume media. Thus, if we are to reach the greatest number of families who need our help, the media has to be a part of the solution.

Another means to delivering public education is through advocacy efforts. As with the media, many trainees may think that they do not have enough knowledge or experience to inform elected officials about policies that influence children and families. However, in truth, trainees have dedicated thousands of hours of their lives to knowing and understanding the lives of their patients. Many trainees also have lived experience of family members who have suffered with their own emotional concerns or traumas. Thus, trainees are well positioned to engage in advocacy efforts, and doing so while in-training may pave the way for a lifelong career

in advocacy. Local legislative conferences for regional medical organizations can be a gradual and low-pressure initiation into advocacy. Most regional medical organizations have dedicated positions and roles for trainees. National advocacy opportunities are also available in the form of visiting Washington D.C. to meet with national leaders and joining committees that write professional amicus briefs and position statements in response to current events.

If trainees question why public education and advocacy are important, in addition to helping the youth and families that we serve, it is that they are an antidote to burnout. Trainees and child psychiatrists can often feel a sense of burnout and a loss of meaning in medicine when faced with larger systems that are not trauma-informed, culturally sensitive, and patient-centered. This can feel disempowering to providers, who think that their hands are figuratively tied. Advocacy is the opportunity to change those very systems, such that they are more patient facing, and engaging in this effort can instill resilience and inspiration in trainees to combat burnout.

FUTURE DIRECTIONS

In this section, we explore some future directions in CAP training based on recent developments in the field.

Interventional Psychiatry

Interventional child psychiatry is a rapidly developing field and involves the use of various interventional procedures to treat children with psychiatric conditions when traditional treatments have been unsuccessful.

One common interventional procedure is electroconvulsive therapy, which involves the use of electrical currents to stimulate the brain and alleviate symptoms of severe depression or other mental health conditions [49]. Another procedure is transcranial magnetic stimulation (TMS), which uses magnetic fields to stimulate specific areas of the brain that are involved in mood regulation.

Other interventional procedures used in child psychiatry include deep brain stimulation, vagus nerve stimulation, and repetitive TMS. These procedures are typically reserved for severe or treatment-resistant cases of conditions such as obsessive-compulsive disorder or Tourette syndrome. Ketamine therapy is another treatment option that has shown promise in addressing treatment-resistant depression, anxiety, and other mental health conditions for children.

The field has also grown with respect to wearable devices, such as a trigeminal nerve stimulator for attention-deficit hyperactivity disorder, and multiple technologies to assist youth with autism spectrum disorder in social communication.

As the field of child psychiatry expands, it is crucial for fellows to gain knowledge of interventional child psychiatry. Therefore, it is recommended that programs incorporate this topic into their curriculum, enabling fellows to stay up-to-date on the latest research regarding the effectiveness and safety of these interventions in children and adolescents.

Application of Psychedelics and Cannabidiol Therapeutics

Although there remains little in the way of consistent evidence for use in child and adolescent populations, innovations in the use of ketamine, psilocybin, and cannabidiol (CBD) in adults with mental health concerns bear tracking for near-term implications in child and adolescent education and training.

The Role of Media in the Lives of Youth

Given the ever-expanding role of media in the lives of both youth and family units, fellows should be provided with education and training regarding the effective screening and management of media-based concerns in youth. This includes taking a comprehensive media history when evaluating child and adolescent population that addresses the amount of screen use, types of media and/or apps used, whether or not the child posts original content, and how the child uses media socially. Youth, families, and communities should also be provided with psychoeducation on the impacts of extended screen time, high-risk media behavior, and strategies that parents can use to keep their children safe. This also includes the creation of media curricula for schools.

Sex Education

The *#MeToo* has highlighted that among many other things, the concept of consent is at best misunderstood by much of society. Yet, teenagers do not routinely receive education on what consent means when it comes to intimacy and safe sexual practices. Child and adolescent psychiatrists should be at the forefront of leading community-based efforts to inform all children about the importance of consent, with the hope of reducing rates of sexual assault.

Maintenance of CERTIFICATION

The oral boards in CAP gave way to recertification examinations, which have now again given way to the Article-Based Continuing Certification Pathway of the

ABPN. Programs should utilize journal clubs not only to review the latest evidence-based literature but also to train fellows in how to navigate the ABPN website and take article-based quizzes to maintain board certification.

Recruitment and Retention

It is clear that addressing the workforce shortage for child and adolescent mental health will require innovative ways to target the pipeline, enhance recruitment, and retain diverse clinicians who can meet the needs of the children and families they serve.

Targeting the pipeline through mentorship programs and early exposure to CAP can generate interest in students and inspire toward a career in CAP. The influence of lengthy training of career choice for students requires creative ways to provide optimal training in CAP in a shorter period. To address workforce development, alternatives to the traditional training pathways have been proposed and being considered by professional organizations at various stages of development [50]. These pathway strategies include early commitment through the "Child Track" in the Match program, shortened training, with 3-year CAP training only or a 4-year combined general and CAP training model. Another broadening recruitment from other primary specialties (eg, 3-year postfamily medicine fellowship model). Some of these models are based on the triple board training experience, where general (18 months) and child and adolescent (18 months) psychiatry training is completed in a 3-year period [31].

Additionally, recruitment strategies require support and commitment from government and administration in the form of national strategies focusing on equitable pay, capacity building and providing stipends or loan forgiveness options to offset training expenses. An investment in the health-care force that is striving to meet the ever-increasing demands during a national crisis in children's mental health is critical.

Supporting and retaining child and adolescent psychiatrists from diverse backgrounds, trained in contemporary issues in CAP is key to meet the needs of children and their families. This requires mentorship, investment in career progression, research, scholarship, and academic enhancement opportunities.

SUMMARY

In this article, we first summarized the present state of affairs in CAP, including a brief historical background, the impact of the COVID-19 pandemic, and the proclamation of a National State of Emergency in Child and Adolescent Mental Health. We then reviewed advances in theoretical frameworks involving physician burnout, prevention, access to care, DEI, and trauma-informed care. We provided concrete recommendations for training regarding core values and competencies, prevention and early identification, DEI, trauma-informed care, advocacy, leadership, and systems of care including schools, juvenile justice, foster care, and child protective services. Finally, we shifted to future directions and anticipated upcoming changes within the field, including interventional psychiatry, psychedelics and CBD, the role of media in the lives of youth, sex education, and maintenance of certification. In closing, it is our "hope" that this article has inspired our colleagues to push the boundaries of education and training for a better today and brighter tomorrow; meanwhile, honoring and doing justice to the youth and families whom we serve.

CLINICS CARE POINTS

- CAP fellows should receive clinical experience in maternal/parental mental health and early childhood intervention clinics to care for children throughout their life span.
- Fellows should be trained to identify at-risk youth and families and link them to community services, including skills to work with families for prevention, diagnosis, and intervention.
- Incorporate training on Trauma-Informed Care principles and practices, including creating a safe and healing environment, fostering collaboration and empowerment, and addressing mistrust in medical authority figures and systems.
- Provide comprehensive training on evidence-based treatments for trauma, to equip child psychiatry fellows with a range of tools for providing effective care to patients who have experienced trauma.
- CAP fellowship programs should take a holistic approach to evaluating their fellows.
- Emphasis should be placed on maintaining humanity in the practice of medicine and Programs should go beyond just assessing clinical competence and embrace a more comprehensive approach to evaluating fellows.
- Training programs should provide education on a wide range of gender-affirming interventions, including pubertal suppression, hormone therapy, and surgery, while emphasizing the importance of a multifaceted and introspective approach to care that involves examining and addressing personal biases and countertransference reactions.

- Incorporate cultural humility training as a core component of CAP training programs, including developing intercultural communication skills and respect for cross-cultural differences to enhance therapeutic relationships.
- Empower trainees to be change agents in their communities through public education and advocacy. Provide opportunities for skill development in media collaborations and advocacy, emphasizing their importance in combating burnout and promoting impactful careers in CAP.
- Include interventional psychiatry, psychedelics, and CBD therapeutics in the curriculum of child psychiatry training programs.

DISCLOSURE

The authors have nothing to disclose.

REFERENCES

[1] Mian AI, Milavić G, Skokauskas N. Child and adolescent psychiatry training: a global perspective. Child Adolesc Psychiatr Clin 2015;24(4):699–714.
[2] Gerhard UJ, Schönberg A, Blanz B. Johannes Trüper–mediator between child and adolescent psychiatry and pedagogy. Zeitschrift Fur Kinder-Und Jugendpsychiatrie Und Psychotherapie 2008;36(1):55–63.
[3] Nissen G. Hermann Emminghaus. Founder of scientific child and adolescent psychiatry. Zeitschrift fur Kinder- und Jugendpsychiatrie 1986;14(1):81–7.
[4] Evans B, Rahman S, Jones E. Managing theunmanageable': interwar child psychiatry at the Maudsley Hospital, London. Hist Psychiatry 2008;19(4):454–75.
[5] Forman MA. Child and adolescent psychiatry in europe. In: Remschmidt H, van Engeland H, editors. Historical development, current situation, future perspectives. Berlin: Springer-Verlag; 2000 1999, pp 409. US $56.95 ISBN 3798511705. Developmental Medicine and Child Neurology, 42(7), 501–501.
[6] Simmons M, Pacherova L, Barrett E, Child, E. F. P. T., & Adolescent Psychiatry Working Group. Training in child and adolescent psychiatry (CAP) in Europe: 2010–11 survey by the European Federation of psychiatric trainees CAP working group. Eur Psychiatry 2011;26(S2):582.
[7] Broadband Technology. (n.d.). In The New Dictionary of Cultural Literacy, 3rd ed. Available at: https://www.encyclopedia.com/economics/encyclopedias-almanacs-transcripts-and-maps/broadband-technology
[8] Wingfield, N. (2007, June 27). Comcast Blocks Web Traffic, Drawing Ire. The Wall Street Journal. Available at: https://www.wsj.com/articles/SB118289311361649057/. Accessed June 27, 2007.
[9] Cloud, J. (2007, October 22). Teens in Tech: Building Gadgets, Tinkering with Software and Generally Messing Around. Time. Available at: https://content.time.com/time/specials/2007/article/0,28804,1677329_1678542,00.html. Accessed November 01, 2007.
[10] Loades ME, Chatburn E, Higson-Sweeney N, et al. Rapid systematic review: the impact of social isolation and loneliness on the mental health of children and adolescents in the context of COVID-19. J Am Acad Child Adolesc Psychiatry 2020;59(11):1218–39.e3.
[11] Kelly Y, Zilanawala A, Booker C, et al. Social media use and adolescent mental health: Findings from the UK Millennium Cohort Study. EClinicalMedicine 2018;6:59–68.
[12] World Health Organization. (2023). COVID-19 weekly epidemiological update. Available at: https://covid19.who.int/?mapFilter=deaths. Accessed April 12, 2023.
[13] Golberstein E, Wen H, Miller BF. Coronavirus disease 2019 (COVID-19) and mental health for children and adolescents. JAMA Pediatr 2021;175(9):817–8.
[14] Patrick SW, Henkhaus LE, Zickafoose JS, et al. Well-being of parents and children during the COVID-19 pandemic: a national survey. Pediatrics 2020;146(4):e2020016824.
[15] Ravens-Sieberer U, Kaman A, Erhart M, et al. Impact of the COVID-19 pandemic on quality of life and mental health in children and adolescents in Germany. Eur Child Adolesc Psychiatry 2021;30(5):27–37.
[16] American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry, Children's Hospital Association. (2022). Declaration of a national emergency in child and adolescent mental health. Available at: https://www.aap.org/en/advocacy/child-and-adolescent-healthy-mental-development/aap-aacap-cha-declaration-of-a-national-emergency-in-child-and-adolescent-mental-health/. Accessed December 22, 2022.
[17] The White House. (2022, March 1). Fact sheet: President Biden to announce strategy to address our national mental health crisis as part of unity agenda in his first State of the Union. Available at: https://www.whitehouse.gov/briefing-room/statements-releases/2022/03/01/fact-sheet-president-biden-to-announce-strategy-to-address-our-national-mental-health-crisis-as-part-of-unity-agenda-in-his-first-state-of-the-union/. Accessed March 01, 2022.
[18] Shanafelt TD, Hasan O, Dyrbye LN, et al. Intensive care unit physician burnout and clinician support during COVID-19. J Am Med Assoc 2020;324(20):2007–9.
[19] Schernhammer ES, Colditz GA. Suicide rates among physicians: a quantitative and gender assessment (meta-analysis). Am J Psychiatry 2004;161(12):2295–302.
[20] Moriates C, Dohan D, Spetz J. Women Physicians in the United States in 2020: COVID-19 Pandemic Impacts and Initial Insights. J Womens Health 2021;30(4):482–6.
[21] AAMC. (2019). Diversities in Medicine: Facts and Figures 2019. Available at: https://www.aamc.org/data-reports/workforce/interactive-data/figure-18-percentage-all-active-physicians-race/ethnicity-2018. Accessed December 22, 2022.
[22] Winter S, Diamond M, Green J, et al. Transgender people: health at the margins of society. Lancet 2016;388(10042):390–400.

[23] Feder KA, Smith C. Addressing adverse childhood experiences: implications for health care providers. J Womens Health 2018;27(10):1218–25.
[24] Poteat T, Scheim AI, Xavier J, et al. Global health burden and needs of transgender populations: A review. Lancet 2019;394(10192):412–36.
[25] De Vries AL, McGuire JK, Steensma TD, et al. Young adult psychological outcome after puberty suppression and gender reassignment. Pediatrics 2014;134(4):696–704.
[26] Metzl JM, Hansen H. Structural competency: theorizing a new medical engagement with stigma and inequality. Soc Sci Med 2014;103:126–33.
[27] Pumariega AJ, Rothe E, Mian A, et al, American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Quality Issues (CQI). Practice parameter for cultural competence in child and adolescent psychiatric practice. J Am Acad Child Adolesc Psychiatry 2013;52(10):1101–15.
[28] American Academy of Child and Adolescent Psychiatry. (n.d.). Diversity and Cultural Competency Curriculum for Child and Adolescent Psychiatry Training. Available at: https://www.aacap.org/App_Themes/AACAP/Docs/resource_centers/cultural_diversity/Diversity_and_Cultural_Competency_Curriculum_for_CAP_Training.pdf. Accessed December 25, 2022.
[29] Cama SF, Sehgal P. Racial and ethnic considerations across child and adolescent development. Acad Psychiatry 2021;45(1):106–9.
[30] Tikhonov AA, Espinosa A, Huynh QL, et al. Bicultural identity harmony and American identity are associated with positive mental health in US racial and ethnic minority immigrants. Cultur Divers Ethnic Minor Psychol 2019;25(4):494–504.
[31] Shaligram D, Bernstein B, DeJong SM, et al. "Building" the 21st century child and adolescent psychiatrist. Acad Psychiatry 2022. https://doi.org/10.1007/s40596-022-01543-3.
[32] García Coll C, Lamberty G, Jenkins R, et al. An integrative model for the study of developmental competencies in minority children. Child Dev 1996;67:1891–914.
[33] Olfson M, Blanco C, Wang S, et al. National trends in the mental health care of children, adolescents, and adults by office-based physicians. JAMA Psychiatr 2014;71:81–90.
[34] American Academy of Pediatrics. Committee on Psychosocial Aspects of Child and Family Health and Task Force on Mental Health. The future of pediatrics: mental health competencies for pediatric primary care. Pediatrics 2009;124:410–21.
[35] Heath, B, Wise Romero, P, & Reynolds, K. (2013). A review and proposed standard framework for levels of integrated healthcare. SAMHSA-HRSA Center for Integrated Health Solutions. Available at: https://www.integration.samhsa.gov/integrated-care-models/A_Review_and_Proposed_Standard_Framework_for_Levels_of_Integrated_Healthcare.pdf.
[36] Office of the Surgeon General (OSG). (2021). Protecting Youth Mental Health: The U.S. Surgeon General's Advisory. U.S. Department of Health and Human Services. Available at: https://www.hhs.gov/surgeongeneral/priorities/youth-mental-health/index.html/ Accessed 2021.
[37] Asarnow JR, Rozenman M, Wiblin J, et al. Integrated medical-behavioral care compared with usual primary care for child and adolescent behavioral health: A meta-analysis. JAMA Pediatr 2015;169(10):929–37.
[38] Yonek J, Lee CM, Harrison A, et al. Key components of effective pediatric integrated mental health care models: A systematic review. JAMA Pediatr 2020;174(5):487–98.
[39] Sarvet B, Gold J, Bostic JQ, et al. Improving access to mental health care for children: the massachusetts child psychiatry access project. Pediatrics 2010;126(6):1191–200.
[40] Straus JH, Sarvet B. Behavioral health care for children: the massachusetts child psychiatry access project. Health Aff 2014;33(12):2153–61.
[41] Dvir Y, Ryan C, Straus JH, et al. Comparison of use of the Massachusetts Child Psychiatry Access Program and patient characteristics before vs during the COVID-19 pandemic. JAMA Netw Open 2022;5(2):e2146618.
[42] Pomerantz AS, Corson JA, Detzer MJ. The challenge of integrated care for mental health: leaving the 50-minute hour and other sacred things. J Clin Psychol Med Settings 2009;16(1):40–6.
[43] American Academy of Child and Adolescent Psychiatry (AACAP) Committee on Collaborative and Integrated Care and AACAP Committee on Quality Issues. Clinical Update: collaborative mental health care for children and adolescents in pediatric primary care. J Am Acad Child Adolesc Psychiatry 2022. https://doi.org/10.1016/j.jaac.2022.06.007.
[44] Burkey MD, Kaye DL, Frosch E. Training in integrated mental health-primary care models: a national survey of child psychiatry program directors. Acad Psychiatry 2014;38(4):485–8.
[45] Gleason MM, Sexson S. Preparing trainees for integrated care: triple board and the postpediatric portal program. Child Adolesc Psychiatr Clin N Am 2017;26:689–702.
[46] Njoroge WFM, Williamson A, Mautone JA, et al. Competencies and training guidelines for behavioral health providers in pediatric primary care. Child Adolesc Psychiatr Clin N Am 2017;26:717–31.
[47] D.R. DeMaso, J.R. Knight, et al., Collaboration essentials for pediatric & child and adolescent psychiatry residents: working together to treat the child. Available at: https://www.aacap.org/App_Themes/AACAP/docs/clinical_practice_center/systems_of_care/Collaboration_Essentials_2013.pdf. Accessed December 27, 2022.
[48] Shaligram D, Skokauskas N, Aragones E, et al. Staff of the Texas Child Mental Health Care Consortium, Watkins M, Leventhal B. International perspective on integrated care models in child and adult mental health. Int Rev Psychiatry 2022;34(2):101–17.
[49] Imberti C, Hertecant J, van den Broek A, et al. Electroconvulsive therapy in children and adolescents: a systematic review of clinical and safety issues. Child Psychiatry Hum Dev 2014;45(4):1–10.
[50] Guerrero APS, Beresin EV, Balon R, et al. New concepts and new strategies for the future. Acad Psychiatry 2022;46(1):6–10.