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Pediatric Consultation-Liaison (C-L) Psychiatry Training Pathways

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Abstract

This perspective piece reviews the current training pathways for pediatric consultation-liaison (C-L) psychiatry. Significant workforce shortages of child and adolescent psychiatrists (CAP) over the past three decades have led to the creation of new training pathways between pediatrics and CAP training programs to care for children whose medical and psychiatric management has become increasingly complex. There are now several options available to receive excellent training in pediatric C-L. Efforts to foster continued interactions and shared education between adult and pediatric C-L providers are likely to be beneficial to both disciplines given the astonishing advances in technology over the years that have allowed many patients with complex childhood medical disorders to survive into adulthood today.

Pediatric Consultation Liaison (C-L) Psychiatry Training Pathways

"How exactly does one train to become a pediatric C-L psychiatrist today?" This perspective piece reviews the current training pathways into pediatric C-L psychiatry.

Differences in Pediatric and Adult C-L Psychiatry

Pediatric C-L arose from a collaborative origin in which child psychiatry was intentionally embedded in children's hospitals. Thus, in clinical practice, pediatric C-L differs from adult C-L in 3 main ways: 1) an increased sensitivity to the variability in developmental trajectories through childhood, particularly in cognitive and emotional development; 2) an appreciation of the essential role of the family in adaptation; and 3) an emphasis on facilitating coping and adjustment to medical illness for optimal development rather than adopting a primary focus on psychopathology. While the general principles of adult C-L psychiatry work are applicable to patients across the developmental lifespan, the specific medical illnesses and the manifestations seen in younger patients are often vastly different

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from those seen in adults with complex medical illness (e.g., pediatric cardiology versus adult cardiology).

Establishing a field in “Pediatric Psychiatry”

“Pediatric psychiatry” was initially established by Leo Kanner who was hired by Adolf Meyer in 1930. Kanner’s vision included educating pediatricians and the early child psychiatrists in joint training under one roof at the Harriet Lane Home at Johns Hopkins Hospital (1). As a field of study, child psychiatry initially focused on common behavioral problems seen in general pediatrics along with the psychological coping and adaptation of medically ill children in the context of their families and communities. Over time, as “pediatric psychiatry” grew in scope, many pediatric medical advances were achieved, and pediatric C-L psychiatry continued to develop into its own area of clinical focus within hospitals. “Pediatric psychiatry” evolved into ‘general’ child psychiatry, with the advent of the Diagnostic and Statistical Manual of Disorders (DSM) which had its own childhood-specific psychiatric disorders that included attention deficit hyperactivity disorder, mood and anxiety disorders, conduct disorder, along with eating and other behavioral disorders. The term child and adolescent psychiatry (CAP) was adopted in 1988 as caring for adolescents developed into its own subspecialty care area (2). Peds C-L psychiatry remains a core competency under the larger umbrella of CAP training and was assessed separately as a small section of the oral board examinations until the late 1990’s. Both the oral board exam and the C-L exam section have long since been discontinued. Today, the Accreditation Council for Graduate Medical Education (ACGME) only requires that CAP providers complete a 1 month rotation in C-L psychiatry along with exposures to collaborative care models working with pediatricians (3) despite the increasing complexity of pediatric care due to technological advances. While there are no standardized pediatric C-L training curricula offered, a small number of dedicated CAP trainees interested in more integrated care still choose to go into pediatric C-L settings after graduation.

Workforce shortage created additional paths into CAP and pediatric C-L psychiatry

As the growing mental health needs of children became more apparent, workforce shortages of CAP trained providers were identified in the early 2000’s (4). Recruitment of medical students and residents into CAP has been an area of major concern for more than three decades. For those who were interested in deeper peds C-L training, traditional serial full residencies in pediatrics, general adult psychiatry and CAP fellowship were the main option until 1986 when new pathways described below became available. An additional adult C-L fellowship training pathway was not offered until 2005.

Creative training pathways were proposed in the hope of attracting medical students interested in pediatrics and psychiatry into CAP. This led to the development of the 5-year combined “Triple Board” training programs which offer ACGME accredited residencies in Pediatrics, Psychiatry and Child and Adolescent Psychiatry (5). Formally approved in 1986 by the American Board of Pediatrics (ABP), the American Board of Psychiatry and Neurology (ABPN), the American Academy of Pediatrics (AAP), the American Academy

of Child and Adolescent Psychiatry (AACAP), and the American Psychiatric Association (APA), funding support for Triple Board programs originally came from the National Institute of Mental Health, the Center for Mental Health Services, the ABP and the ABPN (6). There are currently 10 approved triple board programs across the United States https://tripleboard-postpediatricportal.com/ .

Additionally, in 2005 AACAP proposed a pathway by which a board eligible pediatrician (having completed 3 years of general pediatrics residency) could complete an additional 3 years of training in adult psychiatry along with child and adolescent psychiatry (7). This model, later named the Post Pediatric Portal Program (PPPP), was designed to mirror the 3-year timeline for most pediatric fellowship training programs across specialties. There are only 4 formal PPPP programs offered currently; https://tripleboard-postpediatricportal.com/post-pediatric-portal-program-contacts/ .

Triple Board and PPPPs both offer formal training in general pediatrics which allows combined training graduates to leverage their familiarity with rotating on pediatric hospital medicine and other subspecialty services as a means of more effectively facilitating communication between the pediatric and psychiatry provider groups. In addition, the study of typical childhood and adolescent development in general pediatrics provides a strong foundation for comparison when learning later about the various psychiatric disorders of childhood and adolescence. According to the ABPN, as of June 2023, the Triple Board programs have produced a total of 443 graduates (426 confirmed and 17 anticipated to graduate in this cycle) since their inception more than 30 years ago. Likewise, the PPPP have produced 31 graduates to date. While these programs both appear to have had successful outcomes by a variety of metrics, training approximately 20 residents a year through these supplemental training pathways did not fully resolve the shortage of pediatric mental health providers (8–11). Moreover, variation in the number of trainees per year from both pathways is largely due to difficulties identifying sustainable institutional funding for these intensive training programs.

Many graduates of triple field training, whether through a formal Triple Board program or through serial full residencies, provide highly specialized psychiatric management for hospitalized children undergoing complex treatments including multiple organ transplants, stem cell transplant and other technologically advanced therapies (9, 12–15). They may offer expertise in the treatment of depression and anxiety in children and adolescents with concomitant illnesses but may also treat delirium and catatonia in more critically ill pediatric patients. In today’s healthcare environment, these graduates also increasingly find themselves providing outpatient psychiatric consultation in pediatric primary care and specialty clinics for patients with chronic illnesses such as epilepsy, cystic fibrosis, diabetes mellitus, chronic pain and eating disorders. Graduates of combined training programs are board eligible in multiple specialties but go on to careers in CAP more frequently than in general pediatrics or adult psychiatry (9). These providers are often well-trained for C-L psychiatry positions in large university settings or children’s hospitals. They may pursue further specific subspecialty training in disease areas such as asthma, pain, pediatric oncology, and other areas of medicine where there is a substantial cross over between the general pediatric care paradigm and the CAP case conceptualization. Further, as combined

training through the Triple Board program requires two years of general pediatric rotations, providers graduating from these programs may be well-suited to practicing collaboratively within specialty settings such as the emergency department, the pediatric intensive care unit, and even the newborn nursery.

Formal recognition of adult C-L psychiatry helps pediatric C-L gain recognition

The Academy of Psychosomatic Medicine, founded in 1953, developed the field of Consultation-Liaison Psychiatry which led to an ABPN-designated subspecialty in Psychosomatic Medicine (PM) in 2003 with the first Board exam in PM given in 2005 (16, 17). Child and adolescent C-L psychiatry, which had initially developed independently under CAP, followed suit with the name change and Pediatric Psychosomatic Medicine was launched with a handbook (18) and a textbook (19). However, due to poor general understanding of the term PM, both fields later adopted a name change back to Consultation-Liaison Psychiatry in 2018.

When seeking ABPN certification, general C-L programs indicated that they would examine new fellowship graduates on the principles of C-L in children and adolescents in order to include their pediatric counterparts (20). Of note, while the general (adult) C-L psychiatry programs focus on psychiatric care of medically and surgically ill adults, the associated board examination has historically also contained 2–4% of questions on pediatric topics.

Additional considerations when choosing a pathway into pediatric C-L

While general C-L programs have grown significantly over the past decades, there is currently only one 1-year ACGME C-L fellowship program that is approved for pediatric C-L training at Albert Einstein College of Medicine at Montefiore Children's Hospital and Medical Center (9 months in pediatric C-L and 3 months in adult C-L). Applicants to the program are expected to be board-eligible in CAP at the time of matriculation (21). Graduates of the program are eligible to take the general C-L psychiatry board examination (22). To date there is no standalone pediatric C-L psychiatry certification. However, several adult C-L programs offer elective exposures to pediatric C-L consults. Unfortunately, this information is not consistently documented anywhere. Trainees interested in peds C-L who want to pursue an adult C-L psychiatry fellowship should inquire as to the availability of such electives when interviewing.

Additional formal training in adult C-L psychiatry may be particularly useful for those interested in working with transitional age youth with chronic childhood illnesses such as cancer survivors who move into adult services but have long-term complications from treatments (i.e., decreased fertility or secondary cancers as adults). Likewise, C-L certification is required to be a training director in adult C-L programs; however, no additional adult C-L certification is required to train residents in pediatric C-L or to practice pediatric C-L in children's hospitals and other pediatric settings. Initially, leaders in adult C-L aspired to direct all C-L training with the creation of the C-L board exam, but the two fields require unique training models and competencies, and, thus, pediatric C-L remains

firmly within the field of general CAP. Notably, over the past 2 decades, the fields of adult and pediatric C-L psychiatry have largely progressed independently of one another.

Current state

According to the National Residency Match Program (NRMP) 2022 Fellowship Match Summary data, there were 90 applicants to the 61 NRMP registered C-L psychiatry fellowship programs (126 total positions offered), and 65.9% of the spots were filled in the 2022 NRMP match leaving 28 programs with at least one unfilled position (23). Moreover, in 2022, the same NRMP Fellowship Match Summary showed 303 applicants matched into CAP out of 380 positions offered amongst 120 registered programs, leaving 49 programs with at least one unfilled position (76.3% total spots filled) (23). In the 2023 Main Residency Match NRMP data report (released March of 2023), there were 21–22 triple board intern spots available annually in the retrospective 2019–2022 statistics with zero unfilled positions (24). However, in the same report there was a notable drop in the 2023 triple board recruitment leaving 4 unfilled spots at a time in which one new program launched and an existing program experienced restructuring in their pediatric hospital service provisions (24). Given the difficulty filling both CAP and C-L fellowship slots, it seems impractical to propose a dedicated pediatric C-L training pathway resulting in sub-subspeciality board certification at this time.

Training Pathways in Pediatric C-L

While there is no dedicated fellowship or board certification specific to pediatric C-L psychiatry, there are multiple pathways for those interested in working at the intersection of pediatrics, CAP and C-L psychiatry-see Table 1. Pediatric training particularly enriches CAP training through its teaching of different streams of development (physical, language, gross and fine motor, social/attachment, sexual), its focus on anticipatory guidance, and a multidisciplinary approach to treatment. The role of medical director for a pediatric C-L service is often filled by a clinician who has either completed an adult psychiatry residency and a CAP fellowship or a combined training program such as the Triple Board. Pediatric C-L directors typically have honed their skills through the time-honored apprenticeship model to emerge as leaders in the field.

Conclusions

Health care is increasingly focused on ‘collaborative’ or ‘integrated’ care across the lifespan. Currently, there are several pathways to receive excellent training in pediatric C-L. There is no categorically “right” pathway—each pathway takes a different amount of time, provides the trainee with different certification options, and allows for different opportunities with regard to future roles such as becoming a training director in C-L or CAP. How do we increase the numbers of pediatric C-L practitioners when CAPs continue to face a drastic national and international workforce shortage as evidenced by the October 2021 AAP, AACAP, and Children’s Hospital Administration joint declaration of a mental health crisis and The Surgeon General’s Advisory report on Protecting Youth Mental Health 2021 (25, 26) while C-L psychiatry continues to struggle with its own fellowship fill rates? ACLP and

AACAP may be able to leverage their linked pediatric C-L listservs in both organizations to address this need. Adult C-L programs that offer elective exposures to pediatric C-L consults may benefit from curating and disseminating this information on the ACLP C-L fellowship site.

One area that adult C-L is far ahead of pediatric C-L is in C-L research where the effectiveness of collaborative or integrative care models that lead to improved medical outcomes (27) are well-documented. More robust efforts to develop sustainable research in pediatric C-L are needed. Partnering with adult C-L researchers for long term outcomes would advance both fields. Lastly, given the notable increase in general children's psychiatric disorders along with the astonishing advances in technology which have allowed many patients with complex childhood medical disorders to live into adulthood today, the need for a more robust pediatric C-L workforce is readily apparent. ACLP could consider promotion of training competencies in pediatric C-L in collaboration with AACAP whose membership has already begun to develop such competencies (28). Likewise, efforts to foster continued interactions and bidirectional education between adult and pediatric C-L providers, both within ACLP and across the nation's healthcare institutions, are likely to be beneficial to both disciplines.

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Table 1:

Training Pathways in Pediatric C-L [*] psychiatry

	General Psychiatry + Child & Adolescent Psychiatry (CAP)	Triple Board Program	Post Peds Portal Project	General Psychiatry + C-L Psychiatry	General Psychiatry + CAP + C-L Psychiatry	Pediatrics + General Psychiatry + C-L psychiatry
General Psychiatry	3–4 years	1.5 years	1.5 years	4 years	3–4 years	3–4 years
CAP	2 years	1.5 years	1.5 years	0	2 years	2 years
Pediatrics	0	2 years [**]	3 years	0	0	3 years
C-L Psychiatry	0	0	0	1 year	1 year	1 year
Training Total	5–6 years	5 years	6 years	5 years	6–7 years	9–10 years
Board Certification Eligibility	General Psychiatry Child & Adolescent Psychiatry	General Psychiatry Child & Adolescent Psychiatry Pediatrics	General Psychiatry Child & Adolescent Psychiatry Pediatrics	General Psychiatry C-L Psychiatry	General Psychiatry Child & Adolescent Psychiatry C-L Psychiatry	General Psychiatry Child & Adolescent Psychiatry Pediatrics C-L Psychiatry
BoardEligibility/ BoardCertification	ABPN board certified as of 12/13/22: 8883[Δ]	ABPN board eligible as of 6/26/23: 443[+]	ABPN board eligible as of 6/26/23: 31[+]	ABPN board certified as of 12/13/22: 1284[Δ]	ABPN board certified as of 12/13/22: unknown	ABP and ABPN board certified as of 12/13/22: unknown

[*] Consultation-Liaison ABP = American Board of Pediatrics ABPN = American Board of Psychiatry and Neurology

[**] Includes 3 additional years of pediatric continuity clinic embedded within the adult psychiatry and child psychiatry training months (for a total of 5 years of pediatric continuity clinic)

[Δ] The number of active certificates held by diplomates who were certified in their primary specialty in 1988 or later (assuming a 35-year career).American Board of Psychiatry and Neurology on Psychiatry and Neurology Certifications. *Certifications – Total and Active (as of December 31, 2022)*. https://www.abpn.com/wp-content/uploads/2023/03/ABPN-Certifications-Total-and-Active-2022.pdf.

[+] American Board of Psychiatry and Neurology query report regarding Board Eligible TBP and PPPP graduates as of June 26th, 2023; data available upon request