

Chapter 1

General Principles of Pediatric Consultation-Liaison Psychiatry



Anthony P. S. Guerrero, Norbert Skokauskas, Paul C. Lee,
H. Charles Fishman, Cathy K. Bell, and Jason R. Keifer

Introduction

Orientation to This Textbook

Welcome to “Pediatric Consultation-Liaison Psychiatry: A Global, Healthcare Systems-Focused, and Problem-Based Approach!”

This textbook brings together practitioners from around the world to explore essential concepts in pediatric consultation-liaison psychiatry (also known as pediatric psychosomatic medicine) utilizing a problem-based approach. Shaw et al. (2010) define pediatric psychosomatic medicine as the “subspecialty of child and adolescent psychiatry that is dedicated to providing mental health services to

A. P. S. Guerrero (✉) · P. C. Lee
Department of Psychiatry, University of Hawai‘i John A. Burns School of Medicine,
Honolulu, HI, USA
e-mail: GuerreroA@dop.hawaii.edu; paul.c.lee23.civ@mail.mil

N. Skokauskas
Department of Centre for Child and Youth Mental Health, Institute of Mental Health,
Medicine and Health Sciences, NTNU, Trondheim, Norway
e-mail: norbert.skokauskas@ntnu.no

H. C. Fishman
Department of Psychiatry, University of Hawai‘i, John A. Burns School of Medicine,
Honolulu, HI, USA

Reconnect Family Services, Auckland, New Zealand
e-mail: charles@fishman.co.nz

C. K. Bell · J. R. Keifer
Kahala Clinic for Children & Family, Honolulu, HI, USA

youngsters with physical illness.” The United States’ Accreditation Council for Graduate Medical Education (ACGME) describes psychosomatic medicine as “the discipline encompassing the study and practice of psychiatric disorders in patients with medical, surgical, obstetrical, and neurological conditions, particularly for patients with complex and/or chronic conditions” (ACGME 2016). Likewise, a consensus paper from the European Association of Consultation-Liaison Psychiatry and Psychosomatic Medicine (EACLPP) and the Academy of Psychosomatic Medicine (APM) considered “psychosomatic medicine” and “consultation-liaison psychiatry” to be interchangeable and described the specialty’s scope as inclusive of consultative, collaborative, or integrated care participation for patients being treated in the nonmental health setting. It specifically outlines that “The scope necessarily includes psychiatric collaboration or integration in support of mental healthcare services provided in primary care and specialty care settings” (Leentjens et al. 2011). While much of the content of this textbook focuses on traditional inpatient consultation-liaison psychiatry, it includes chapters and case vignettes (even in this chapter) that take place in outpatient and community settings.

The editors enthusiastically believe that pediatric psychosomatic medicine, or pediatric consultation-liaison psychiatry, is the single most important specialty in the future of healthcare, nationally and globally for two reasons. First, it plays a major role in preventively addressing the psychiatric and psychosocial comorbidities affecting a vulnerable population that adversely impact healthcare outcomes throughout the lifespan and that lead to potentially avoidable healthcare spending. Second, it has a potential role in optimizing access to child and adolescent mental healthcare through its collaboration with other healthcare specialties.

Targeting a broad audience, the editors have chosen to include illustrative vignettes throughout the textbook. These cases were developed based on scenarios commonly encountered by both psychiatrists and referring professionals from other disciplines working in a variety of settings, ranging from the traditional inpatient and tertiary care settings to the community. The editors are especially delighted that this book is a global collaboration, involving authors from various parts of the world, including North and South America, Europe, Asia, Africa, and New Zealand.

The chapters are structured around the study of case vignettes that demonstrate the value of psychiatry in various contexts and settings. In the spirit of problem-based learning, or PBL, and with the hopes of simulating real-life clinical problem-solving, cases are structured, where appropriate, around a progressive disclosure model, to allow for further reflection and reading in between the parts of the vignette. The reader is encouraged to learn more about applications of PBL in teaching and learning psychiatry (see Alicata et al. 2016). We strongly believe that pediatric consultation-liaison psychiatry is particularly well suited to PBL, which promotes multidimensional thinking, collaboration, and lifelong learning: all essential aspects of the specialty.

Terminology

Across countries, different terminologies may be used to describe common elements within pediatric consultation-liaison psychiatry. For the sake of clarity, the term “fellow” or “resident” or “junior doctor” describes a physician who is completing specialty training in psychiatry or child and adolescent psychiatry or other subspecialty. The term “attending psychiatrist,” “psychiatrist consultant,” or “senior doctor” describes the senior, supervising psychiatrist who specializes in pediatric consultation-liaison psychiatry. The term “referring physician/provider” or “attending physician/provider” describes the nonpsychiatrist physician/provider who is referring the patient for psychiatric consultation. Finally, where applicable, the term “parent or guardian” includes the child’s caregiver or anyone else with legal responsibility for the child.

Without further delay, let us begin studying a fictitious case, to illustrate general principles of pediatric consultation-liaison psychiatry.

General Principles Relevant to Children and Adolescents on a Consultation-Liaison Service

Preparing for the Pediatric Consultation-Liaison Encounter

Case Vignette 1.1

You are a relatively new fellow/junior doctor on the pediatric psychiatry consultation-liaison service. You receive the following new consult request from the newborn nursery: “please evaluate and provide support for the 17-year-old mother of a new baby with congenital clubfoot.” You wonder how to approach this somewhat unfamiliar situation.

This case illustrates the importance, in pediatric consultation-liaison psychiatry, of maintaining an open mind and embracing inquisitiveness and lifelong learning. In the above scenario, many questions arise: Who is really the patient, the newborn or the mother? Is it the consultant’s role to be seeing the parents of pediatric patients, even though the mother is also in the pediatric age group? Do we need the mother’s parent or guardian to agree to the consult, or is the mother able to consent for herself? Is “providing support” a typical role for a consulting psychiatrist?

While the actual answers to these questions may differ, based on country or local statute or practice, they are nonetheless important to think through. Many other questions often arise. One key practice to address some initial questions is to discuss the case with the referring provider before seeing the pediatric patient. This discussion will allow one the opportunity to ask the referring provider their understanding of some of the initial questions and aid in developing a clear idea of the issues to address in the consultation. Where applicable, one should get an idea of the prognosis of the patient’s medical condition. More fundamentally, it is important to

ascertain who is the most appropriate “identified patient” to facilitate appropriate registration and documentation. In the vignette, it is not immediately obvious who is the “patient.”

If the identified patient is a child or adolescent or other person without legal autonomy, it is advisable (except in unusual circumstances) to ensure that the parent(s) and/or guardian(s) have been informed about, and have agreed to, the consultation. Indeed, the effectiveness of the consultation-liaison psychiatrist is limited if the initial encounter with the patient and family is awkward or confrontational merely because they had not been informed that a psychiatric consultation was requested. Along these lines, and for the purposes of documenting medical necessity, the consultant should ensure that the referring medical team has either written an order for the consultation or documented that a consultation is necessary and therefore being requested.

Case Vignette 1.2

Following a discussion with your attending psychiatrist/senior doctor, you call the referring physician to discuss the team’s specific concerns and to learn more about the baby’s prognosis. You learn that the neonate’s prognosis beyond the clubfoot is otherwise very positive. You ensure that a consult has been formally requested for the mother as the identified patient. You also confirm that her own legal guardian (the baby’s maternal grandmother) will be agreeably involved in the initial interview. You then ponder what your approach should be to the initial meeting with the patient.

In the interests of maintaining optimal relationships with the system of care surrounding a pediatric patient, the consultant should always remember this advice: all consultation requests should be regarded with respect and full consideration. Even if the identified patient were to seem “fine,” or if the referral question were “vague,” every consultation request suggests that someone in the system – whether a family member, healthcare professional, or other stakeholder – is concerned and therefore potentially able to benefit from a timely, systems-sensitive intervention. In one of the author’s institution’s consultation-liaison service, residents and fellows are encouraged to take the perspective of bright and eager new physicians who are grateful for the privilege to work in the medical center and who are always pleased to find work that can support their practice. Adopting such an attitude improves the overall quality of the consultation-liaison service and, ultimately, the care the patients and families receive.

Case Vignette 1.3

You meet with the patient, the nursing baby, and the patient’s mother at bedside. Before beginning the formal assessment, you politely introduce yourself, discuss your understanding of the reason why you are meeting, and share what you know about her history thus far. You congratulate her on the birth of her new baby. Sensitive to the realities of what it must be like to be in the hospital and to just have given birth, you ask general questions about how she is doing now and whether it is a good time to do an interview. Although not denying that she is quite exhausted and

sleep-deprived, she confirms that the time is convenient and that she wants her own mother to be present, to help her with the baby.

You identify some symptoms of anxiety related to family tensions involving concerns over having to care for a child at too young an age, the responsibilities involved with parenthood, and the unexpected outcome of the congenital clubfoot. You consider a possible adjustment disorder and take the opportunity to provide education about the signs and symptoms of depressive and anxiety disorders, for which you feel she has some risk factors. In working with the staff, you strengthen your collaborative relationship. Finally, you insure that your documentation is concise and reflective of the impressions and recommendations that you conveyed, using understandable language, to the patient and staff.

The Developmental Perspective: Understanding and Empathizing with Children

Case Vignette 1.4

You consult on a five-year-old male who has been admitted for constipation, encopresis, and fecal impaction. Outpatient interventions, including behavioral interventions and medications for constipation, have been unsuccessful. You think about your initial differential considerations for why outpatient interventions have been unsuccessful up to this point and the additional information that you would seek.

Children and adolescents are continually developing, so it is very important to consider the developmental level of the patient. A comprehensive review of child and adolescent development is beyond the scope of this chapter. However, this chapter will review key aspects of development and particularly how development affects the impact of, understanding of, and adaptation to general medical illnesses. Development will also be a recurring theme in future chapters.

Case Vignette 1.5

In speaking to the child, you discover that he is fearful of sitting on the toilet and has been holding in his stool because he was afraid that “if my poop fell into the hole of the toilet, I could fall in there too.” Together with the rest of the healthcare team, you help him overcome his fear of getting flushed down the toilet, and prior to discharge, he successfully defecates into the toilet. The parents, who are committed to helping him sustain this progress, are very appreciative of your help.

One key principle is that development is a continuous process that builds on success in earlier stages. The consultation-liaison psychiatrist working in pediatric settings should therefore recognize the potential disruption that medical illnesses may have on normal child development.

Table 1.1 summarizes key developmental stages. Emphasis has been placed on social and cognitive domains that may be of clinical importance in the context of medical illnesses. Children’s developmental levels are important to consider in

Table 1.1 A summary of the key stages of development

Age	Social development	Cognitive development	Clinical implications
4–6 months	Increasing awareness and recognition of people, development of attachment		Potential reactive attachment disorders, failure to thrive if inadequate attention to these issues in the context of general medical illness and separation from family
12–15 months		Object permanence	Stranger anxiety; important to consider impact of hospitalization and separation from caregivers
3–6 years	Improved separation (the age when children usually start school)	Preoperational thinking; possible “magical” or otherwise erroneous beliefs	If there is ongoing severe separation anxiety, need to consider differential possibilities, for this child’s reactions and emotions are still very much connected to the family’s
7–11 years	Generally good coping with separation	Concrete thinking	Relatively favorable age for elective surgery; increasing ability to be involved in explanations of illness and treatment, though need to adjust to concrete thinking
11–20 years	Challenging authority	Formal operations: morals, ethics, self-control, humanitarian/global concerns	Need to anticipate/address potential impacts on compliance; may be able to give more detailed explanations of illness and implications

understanding their illness, in discussing coping with their illness and the associated treatments, and in addressing issues related to death and dying. For example, 6-year-olds may have erroneous (though developmentally age-appropriate) beliefs about human physiology and may believe that they can lose all their blood from a blood draw or injection, despite well-meaning reassurances that the pain will not be severe. As another example, unknown to a parent or caregiver, a 6-year-old might believe that justice can emanate from inanimate objects and might blame him or herself for a personal illness or otherwise be afraid of reporting symptoms. Older children, despite more accurate perceptions about the causation of illness, may still not be able to appreciate all the mechanisms that lead to illness. Hence, relatively straightforward explanations about the need for certain treatments may be most appropriate.

Beyond the cognitive understanding of illness, the emotional adjustment to illness is heavily influenced by developmental level. For example, it is likely that a preadolescent who must cope with a physical deformity may be more vulnerable to emotional difficulties compared to a younger child, who may have a less developed body image, or an older adolescent, who may be more cognitively mature.

For children to optimally adjust to issues related to death and dying, they need to understand that death is irreversible, final, inevitable, and causally explained. When

children who have not yet reached the developmental stage to understand these principles must face death, whether it is their own death, or the death of a loved one, they are vulnerable to experiencing adjustment difficulties. For example, a child who does not realize that death is inevitable or causally explained may consider death to be a punishment for wrongdoing. Parents or guardians are often able to gauge their child's cognitive development. However, they frequently benefit from briefings about how to discuss challenging topics, such as death and illness, in a manner that best matches that cognitive development.

The Systems Perspective: Collaborating and Appreciating Role in a Larger Context

Case Vignette 1.6

Right after returning home from work, you are called back to the hospital to assess a 16-year-old female who has been referred by the school counselor to the emergency department for expressing suicidal thoughts while at school. The parents/legal guardians are not currently at bedside. The charge nurse reports that the parents left just a few moments ago, "probably to take a break." You think about what your next step should be. Should you begin interviewing the patient?

Children, both legally and developmentally, are not autonomous beings. They are part of a complex system that includes their family and other professionals involved in a child's care. While local laws may differ somewhat on the degree to which adolescents can consent to certain aspects of medical care (e.g., often related to family planning, sexually transmitted diseases treatment, and substance abuse treatment), most locales require parental consent for most types of behavioral healthcare, except in emergency situations. Additionally, conscientious, system-sensitive involvement of the family in the care of a child or adolescent, whether legally mandated or not, usually constitutes the most optimal clinical care.

Consultants often ask what the best way is to approach child or adolescent patients and their family for the initial consultation. Should the patient or caregivers be interviewed separately first, or should the patient and caregivers be initially interviewed together? The editors believe that there is no one correct answer to this question and recommend that ideally (1) the patient and available family at bedside be introduced to the context of the consultation and then asked about how they would like to proceed (in part, to assess how they view – accurately or otherwise – the relative contributions of the people and the interactions between the people); (2) time be set aside to interview the patient and parents separately, particularly if there are concerns about abuse or other sensitive issues; and (3) a comprehensive biopsychosocial formulation with attention to the child's age and development and the family and systems perspectives guide the titration of the amount of time spent with the patient or parents alone and with the patient and parents together (for instance, if improving communication between the patient and parents is an important focus of the intervention).

Case Vignette 1.7

You call the parents on their cellular phone, and they report that they had gone to the cafeteria to eat dinner. “We were sitting in the emergency department for the last couple of hours. We both had just gotten off from work and had not eaten the whole day. They gave a meal tray to our daughter, but we were not so lucky, so we went to the cafeteria before it closed.”

You empathize with how the parents must be feeling, and you encourage them to finish their meal. Knowing that you need to be alert, focused, and calm to do a competent job with the consultation (not to mention drive back home later in the night), you are glad that you made sure to eat a nutritious meal and to reasonably take care of your own well-being before seeing the family.

The parents soon return to the emergency department. You gather basic information from the youth and the parents. In the individual portion of the history-gathering, she denies that there is any problem. You discuss your understanding of why she is in the emergency department and empathize with what appears to be the reality: that she was not the one who asked to be brought to the emergency department.

She subsequently becomes more open to discussion. She states, “when I told my teacher that all my classmates’ drama was making me think of suicide, I wasn’t really serious, but then the teacher made the school counselor and my parents all scared, so now I’m here.” She had never attempted suicide. While she has some symptoms of depression, she does not meet full criteria for a major depressive episode. There is no history of substance use, and the remainder of the psychiatric history and mental status examination were unremarkable. Based upon your findings, you are inclined to discharge her, but you realize that there are other steps you must take before doing so.

Children and adolescents rarely request psychiatric consultations on their own. The requests for psychiatric assistance and the reporting of psychiatric symptoms are therefore often seen through the lens of the family, healthcare providers, or other concerned individuals. It is also essential to determine why the consultation is being requested. The consultation reason facilitates deciding which aspects of the system warrant attention and intervention. For example, if someone other than the child or family requested the consultation, an effective approach must include directly addressing that person’s concerns. Consultation-liaison psychiatry is the perfect venue to practice the biopsychosocial formulation (discussed in more detail in Chap. 10), which can guide interventions and healing on multiple levels beyond just the psychiatric “diagnosis,” which has the risk of overemphasizing individual illness and undervaluing strengths and resources within the family and larger system.

Many requests for consultation arise from concerns about emotional or behavioral symptoms in a parent or other family member involved in the child’s care. These are entirely appropriate reasons to consult psychiatry, since the family is part of the whole system affecting the child’s health. Therefore, while it is certainly appropriate to clarify the intent of the consultation with the referring provider, we recommend against becoming resistant to a medical team’s request for help. In such situations, it is important to document consultations from the perspective that the

child is the identified patient, even though observations about the parent or other caregiver may also be included. If a parent or other family member needs their own follow-up as a separately identified patient, then this can be part of the recommendation.

Case Vignette 1.8

You meet with the parents, who describe their daughter's many strengths, including her overall good achievement in school and extracurricular activities, but who are concerned with some of her "moodiness" and "irregular sleep habits." The father is especially concerned, because he recalls experiencing some of these symptoms as a teenager. He was later diagnosed with major depression as a young adult, and although, at one point in his life, he was hospitalized for a suicide attempt, he is currently doing well on antidepressant medications. "I feel bad that, of all of the things that our daughter could have inherited, she might have inherited my depression." You provide appropriate education to the parents, who are grateful for the follow-up resources that you have offered.

In addition, because it was the school counselor who recommended the referral (the "why now?" that led to the emergency room visit), you then involve the parents and patient in a phone call to the school counselor, who left her cellular phone number with the parents. She explains that the school is taking any statements of suicide very seriously, particularly because of a recent serious suicide attempt among one of the high school seniors. The school counselor is grateful for your prompt assessment, your involvement of the family, and your phone call, and she requests a doctor's note providing clearance to go back to school. You recognize that calling the school counselor was an important step in completing the consultation; if the school did not have the reassurance that a proper evaluation had been done, then the patient might be referred again for an emergency assessment.

This vignette describes a consultation with a reasonably positive outcome and a reasonably satisfied group of interested adults. Other situations may have additional complexities that can be effectively approached by paying attention to one's role and relationship with the family and system surrounding the patient. Common family and systems-related situations and the potential role for the consultation-liaison psychiatrist are summarized in Table 1.2.

In the next sections, we discuss how optimally caring for patients in pediatric consultation-liaison psychiatry means challenging ourselves to broaden the ways in which we think.

The Psychosomatic Family Model, Insuring the Right Approach, and Empowering the Primary Care Team

Case Vignette 1.9

The patient is a 10-year-old female who is hospitalized for migraine headaches with significant pain and nausea requiring intravenous medications and fluid. Laboratory

tests did not indicate any other medical problems. It was felt that her degree of pain was significantly more than what would be expected for this condition. Nursing staff reported that the patient seemed to most be in pain when her mother and stepfather were in the room together. She otherwise would seem “fine.”

It had been noted that there were recent family stressors, including marital conflict between the mother and stepfather and the birth of a new sibling, who is now 3 months old. The mother had reported that, particularly in the last few months, the patient had been crying more, arguing more, and complaining more of headaches. A psychiatric consultation was suggested to evaluate for “adjustment difficulties,” to rule out a psychological component to the headaches, and to provide “therapy” if indicated.

The identified patient and her family were interviewed. The mother and stepfather report that they are somewhat concerned that patient’s symptoms might indicate the presence of an “aneurysm,” which the maternal great grandmother, who was close to the patient, died from 5 months ago. Patient was not worried that the headaches represent anything other than her migraines.

The family noted that, in the past few months, there have been multiple stressors, including the birth of the patient’s half sister (who is the only other child in the family); loss of the stepfather’s job; increased marital conflict, probably related to the financial pressures of the stepfather’s job loss; and the beginning of a new academic year in a new school. Per the family’s report, there are no previous behavioral concerns. She has had a history of migraines from an early age that was usually well controlled with prophylactic medication. There are also no other medical problems, and there was no pattern of recurring somatic complaints other than the migraines. There is a strong family history of migraines, and mother notes that her own migraines began during childhood.

The patient admitted that she has been feeling sad, “bummed out,” and “a little worried” over all the “money problems” their family had been having. She believed that her migraines may be worse whenever she feels stress. While she says that she likes the new baby, she “never really liked the idea of mom getting re-married.” She recalled that in the previous marriage, “my real dad was always drunk, and he used to hit her, so that’s why they got a divorce.” While she reports being afraid whenever she witnessed violence, she denies any nightmares, flashbacks, or significant distress upon re-exposure to reminders of previous trauma. She denied any past or present history of physical or sexual abuse. She denied excessive worry about her mother’s safety or anxiety upon separating from her family to attend school and other activities. While she has had poor appetite and sleep for the past 2 days since the migraine difficulties began, she denied any previous sleep, appetite, or energy level changes and denied any definite anhedonia or suicidal or homicidal ideations. While cooperative on interview, she did appear uncomfortable, and she preferred the lights off. Vital signs were significant for mild tachycardia.

While a complete discussion of family-based treatments (on which we highly recommend further reading) is beyond the scope of this textbook, it is important to recognize the importance of applying the appropriate model for treatment. Otherwise, instinctively selected interventions or intervention combinations (e.g.,

Table 1.2 Common family-related situations and the potential role for the consultation-liaison psychiatrist

Consultation-liaison scenario	Potential tasks for the consultation-liaison psychiatrist	Possible pitfalls
Family adjustment (e.g., depression, anxiety, “denial”) to a child or adolescent’s illness	Provide family-oriented support and psychoeducation	Providing long-term or in-depth care for a specific family member, without making it explicit to the family or in the medical record, that you have assumed this role, separate from your consultation/liaison role to the identified patient
	Evaluate for the need for further mental health services for family members and provide referrals as appropriate	Not adequately recognizing that initial adaptive “denial” may interfere with optimal medical care and possibly constitute medical neglect
	Educate the medical team on possible emotional reactions to a child’s illness, including what may be initial “denial”	
History or possibility of mental illness (including substance abuse) in the parent and/or other caregiver adult	Evaluate for any acute dangerousness in the parent, or possible abuse/neglect of the child	Providing long-term or in-depth care for a specific family member, without making it explicit to the family or in the medical record that you have assumed this role, separate from your consultation/liaison role to the identified patient
	Evaluate for the need for further mental health services for family members and provide referrals as appropriate	Giving the appearance of having performed a forensic assessment of the adult’s parenting capacity, whereas such a function might better be performed by another mental health provider using standardized assessment tools and usually affiliated with child protective services
Possible parental abuse/neglect, including Munchausen-by-proxy	Evaluate for the need for further mental health services for family members and provide referrals as appropriate	Providing long-term or in-depth care for the parent (see above). Giving the appearance of having performed a forensic assessment of the adult’s parenting capacity, whereas such a function might better be performed by another mental health provider using standardized assessment tools and usually affiliated with child protective services
	Assist the team in making referrals to child protective and hospital risk management services, where indicated	
	Assist the team in formulating a crisis plan (e.g., with hospital security) where indicated	

(continued)

Table 1.2 (continued)

Consultation-liaison scenario	Potential tasks for the consultation-liaison psychiatrist	Possible pitfalls
Angry, abusive, potentially litigious family	Listen closely to parents' concerns, including what they are most concerned about with their child's condition	Not adequately helping the medical team to avoid unnecessary medicolegal risk via:
	Consider all possible reasons for the family's anger, including factors that may be within the medical team's control	"Splitting"
	Evaluate the need for further mental health services for family members and provide referrals as appropriate	Inappropriate documentation Indiscreet conversations
	Evaluate the need for other referrals (e.g., domestic violence help)	
	Assist the team in making referrals to child protective and hospital risk management services, where indicated	
	Assist the team in formulating a crisis plan (e.g., with hospital security) where indicated	
Failure to thrive	Provide a thorough assessment that considers child variables (e.g., temperamental and other behavioral conditions), caregiver variables, and interactional variables; encourage multidisciplinary approaches	Failing to recognize the multifactorial nature of failure to thrive or inadequately managing general medical conditions coexisting with psychosocial conditions
	Evaluate the need for further mental health services for the child or family members and provide referrals as appropriate	

vague or haphazardly planned "individual plus family" approaches) that are not grounded in a coherent, evidence-based model may be counterproductive.

From the family system's perspective, the dynamics seem obvious from the nursing staff report that the patient seemed to be most in pain when her mother and stepfather were in the room together. Given the history, it would be important to treat this youngster and her family using the *psychosomatic family model*.

In 1962, Princeton professor T. S. Kuhn published the landmark book: *The Structure of Scientific Revolutions*. The book documented the discontinuity between paradigms. For example, Einsteinian theory could not be reduced into Newtonian

mechanics. Similarly, $E = mc^2$ was not reducible into Quantum Mechanics (Kuhn and Hawkins 1963).

Edgar Levenson (Levenson 1972) described the progression of models in psychiatry and psychology. In the late-nineteenth century, a problem such as this patient's would be seen as being within her mind, and she would be referred for individual counseling. The metaphors with this first model, the individual approach, were based on the technology of the time: the steam engine. Terms like "displacement" and "repression" described a patient's psychological manifestations. The second model was the communication model. The symptoms developed because this patient was not communicating her feelings. This model came into vogue during World War II. The technological metaphor was a guided missile system: if the missile gets the appropriate feedback, it hits its target. The third model, and the model on which this work is based, is the organismic model. The locus of the patient's problems is in social ecology. The metaphor is biological. The problem is in her social ecology, its structure.

The Psychosomatic Family Model

The term "psychosomatic family" first entered the literature in the early 1970s, when child psychiatrist Salvador Minuchin, psychologist Bernice Rossman, and pediatrician Lester Baker published their book: *Psychosomatic Families: Anorexia in Context* (Minuchin et al. 1978). The model is based on their work at the Children's Hospital of Philadelphia in the early 1970s. Minuchin and colleagues treated three school-aged girls, all with labile diabetes, whose ketoacidosis was exacerbated in one context: while at home with their families. They posited the psychosomatic family model based on their family interactional patterns. The model consisted of four interactional patterns: triangulation, involving the symptomatic child caught between the parental split (such that the resulting diffusion of parental conflict becomes associated with symptom exacerbation), rigidity, conflict avoidance, and perfectionism.

The patient in the vignette is a 10-year-old with a history of migraines accompanied by significant pain and nausea. Her symptomatology manifested most severely when she was with her parents during the evening. Her family system is complex, with father's job loss, economic difficulties, and birth of a new child. These are important factors, adding stress. From the psychosomatic family perspective, however, the pivotal issue to be addressed is an interactional pattern: the split between the parents. To the extent that mother and stepfather cease triangulating their 10-year-old daughter, the symptoms should ameliorate. Note that the tenets of the psychosomatic family model are recursively connected: with a change in one tenet, the others also change.

In the psychosomatic family model, once tests determine that there is no other medical etiology, the clinicians assess the patient's social context, especially interactional patterns within the family. In this case, the crucial step is dealing with the parental unit. In this model, there is a distinction between etiology and maintenance. In the systems model, focus is on the contemporary interactional patterns that are maintaining the symptomatology. The etiology is lost in history and irretrievable;

what *is* retrievable and imminently visible is a conflict between the parents and a temporal connection to the exacerbation of her symptoms.

In the case above, the psychosomatic family model should guide the overall approach. Clearly, working collaboratively is crucial. With this approach, however, individual or supportive counseling would not be a priority and would be counter-productive. Families could get confused when different mental health paradigms are introduced: “is the problem in their daughter’s mind or is the problem in her context.” “Do we have to change,” families ask, or “will you professionals change her?” Instead, the focus should be on dealing with the split in the system, normalizing this girl’s behavior, and enriching her life with her peers such that she would be less adversely influenced by the family dynamics.

In terms of the primary care provider’s (PCP’s) role, rather than immediately involving other consultants for direct care, the PCP might meet with the family and address the triangulation. The provider would discuss the essentiality that they agree on whatever steps are necessary in parenting their child. Disagreements must be resolved away from their daughter. They need to realize that the crucial step is de-triangulating their child.

In the authors’ experience in working with PCP’s, such interventions can powerfully illustrate family transformation and mitigation of presenting symptomatology and can be especially effective in the context of PCP’s often long-term relationships with families.

Case Vignette 1.10

You work collaboratively with the pediatric team to optimize medical management of acute pain. A family-based treatment model is applied, and several months later, her headaches are under stable control, and there are no further hospitalizations.

Interventions based on the psychosomatic model are widely supported in the literature and applied worldwide. In one of the authors’ clinical audit of patients with eating disorders, followed for up to 20 years, self-starving behavior ceased within weeks, and the anorexia nervosa had not recurred after the initial treatment (Fishman 2005).

The Family Development Perspective: Appreciating Adaptiveness, Equilibrium, and Potential Resistance to Change

Case Vignette 1.11

During team rounds, a family physician in an integrated primary care/behavioral health setting asks for your help on a complex patient, an almost 18-year-old female “with what I think is bulimia nervosa... I started her on fluoxetine two months ago, but she still isn’t getting better.”

The patient recently entered a prestigious university and had always been a perfectionistic high achiever. Toward the end of her senior year, she and her friends made a pact to lose weight before a class field trip that involved a visit to the beach.

She lost 5–8 pounds through food restriction and purging. Even after the event was finished, she continued to binge and purge, to the point where she is at risk of not being able to continue in college because of health reasons.

You recognize the potential complexities and seriousness of the case, and you agree to see the patient, together with the primary care team.

Essential pediatric consultation-liaison skills include maintaining an attentive, nonjudgmental, and clinically discerning ear when listening to referring providers; thinking comprehensively and according to biopsychosocial formulation principles (to be further discussed in Chap. 10); and triaging according to levels of risk and severity (in this case, appreciating the potential morbidity and mortality associated with eating disorders, which are also discussed in more detail in Chap. 6).

Case Vignette 1.12

The patient, who is an only child, currently lives with relatives who live closer to the university that she is attending. Through interviewing the patient and the family, you learn that just recently, she began questioning her competence and career choice, worrying significantly about disappointing her parents, and recognizing how much her parents had sacrificed. As she was growing up, the parents, who were busy business owners, tended to not ask much of her since she did well in school and had many extracurricular activities. She tended to be an “intense” child, and when she would get emotionally overwhelmed, upset, or angry, the parents tended to decrease expectations and step in and help her. Mindful of how busy her parents were, however, she tried as much as possible to not to “bother them” with her “issues.”

However, she currently does not perceive that her parents validate her feelings. She is currently quite upset (1) that her parents are in the process of semi-retiring and moving to be closer to her university, (2) that they did not ask permission from her to do so, and (3) that her parents have recently told her that she is “spoiled” and “disrespectful.” She notes that her symptoms tend to worsen when she feels upset or stressed, especially when she feels “judged and unsupported” and as she hears her parents giving “mixed messages,” such as “you’re such a smart girl and you’re essentially an adult now, but we don’t want you to be a college dropout.”

You complete your initial evaluation and communicate, to the primary care team, your recommendations that (1) in addition to medical monitoring and treatment, family-based treatment and intensive structural psychotherapy should also be provided and (2) there are practical interventions that are informed by knowledge of family development and structure that the primary care team can implement and that are likely to be beneficial.

Again, it is important to highlight certain family principles that are particularly relevant to pediatric consultation-liaison psychiatry, which involves working with children and adolescents and their families, usually around an acute or chronic medical problem of some variety.

The first principle is that behavioral or other health-related challenges need to be understood in terms of social context, beyond just a diagnosis with an associated treatment (such as fluoxetine for bingeing and purging in Bulimia Nervosa). The context, behaviors, and patterns of interaction have evolved over time and generally

have a basis in what was once adaptive. Failing to appreciate the system's adaptive-ness and consequent potential resistance to change often leads to unsuccessful treatment, even with what is supposed to be effective and evidence-based. The second principle is that, just as individuals (as discussed in the previous section) undergo development, families also undergo development, and transitions between developmental stages (such as the launch from adolescence to adulthood, as described in the vignette) can often disrupt the equilibrium achieved in previous stages and lead to stress and associated symptoms. The third principle is that effecting meaningful change often requires addressing issues with the family structure, as evident from the conclusion of this case.

Case Vignette 1.13

Successful family-based treatment for this patient included regular, developmentally appropriate communication between the parents and the patient, where feelings that otherwise could fester could be openly and non-judgmentally discussed; appropriate empathy and understanding for the parents, without previous experience in launching an adolescent toward adulthood and relying on nurturing instincts that previously were adaptive; and encouragement for the parents, in their semi-retirement, to pursue their interests and hobbies that they otherwise were planning to put on hold “so that we could be busy again, not with the business this time, but with taking care of our daughter in college.”

After a few weeks, the patient felt more confident in communicating her self-doubts to her parents, who in turn, provided developmentally appropriate reassurance, support, and mentorship for their daughter to take on more adult roles. Correspondingly, her bingeing and purging improved significantly.

The primary care physician was grateful for your intervention and for your teaching about family principles, especially as relevant to supporting the patient's recovery and preventing relapse in a primary care setting.

Relationships: The Foundation of Effective Pediatric Consultation-Liaison

In closing this chapter, we emphasize that relationships – with patients, families, and healthcare team members – are the foundation upon which effective consultation-liaison work must be built.

Case Vignette 1.14

You are a senior doctor in pediatric consultation-liaison psychiatry, about to do weekly rounds with a child and adolescent psychiatry fellow (junior doctor). Your fellow reports that it is an unusually quiet time of the year and that there are

no known new active cases to round on. You therefore have a free hour in the morning, and you wonder how your time should best be spent.

For pediatric consultation-liaison work to be effective, it is of utmost importance to build and maintain solid working relationships with the healthcare team. This goal can be accomplished through collaborations during rounds and other inter-professional meetings with involved providers.

Case Vignette 1.15

You remind your fellow that, even without specific patients to see, doing “walk rounds” in the hospital can be helpful in emphasizing availability of the consultation-liaison service to all units, in learning about new cases who may benefit from consultation, in providing educational debriefings about past consultations, and in strengthening relationships with healthcare team members who will inevitably be important partners for future consultations and even the viability of the consultation-liaison service.

You and your fellow visit several units in the hospital and in doing so encounter:

- *A general pediatrician, who is glad that you stopped by to allow for a face-to-face discussion of a new patient who is being referred for a consultation.*
- *Another general pediatrician, who confirms with you that a mutual patient is currently in reasonably good spirits, even though his bupropion dose has been held, while his renal function tests remain elevated following a significant ibuprofen overdose.*
- *A pediatric hematologist-oncologist, who provides follow-up on several patients who are mostly being seen in the outpatient chemotherapy service and who confirms that a new chemotherapy regimen does not include medications that may interact with one patient’s antidepressant.*
- *A pediatric intensive care nurse manager, who provides positive feedback about a delirium screening protocol that your team has recently implemented.*
- *The neonatal intensive care unit multidisciplinary rounding team: they are pleased to tell you that the new building to where the unit is moving will have more space for your family meetings, but they are all a bit anxious about having to adapt to a larger unit.*
- *The hospital chief executive officer, who is grateful for your team’s services and who asks whether it may be possible to work with the outpatient team on an integrated behavioral health grant proposal.*
- *And finally, something that is new to you notwithstanding your years of experience in the specialty: a 16-year-old patient on the obstetrical service, who is readmitted to the hospital with preeclampsia, signs of organ failure, and symptoms of delirium; in addition, the referring team is interested to hear your advice on how the hospital should handle calls from advocates who believe that the patient is a victim of sex trafficking.*

You realize that the “downtime” earlier in the morning has now ended, and you encourage your fellow to embrace the day’s challenges and all the associated learning.

Thinking of how exciting our work can be (even with just 1 h of fictitious rounding), we welcome you to the rest of this textbook.

Overview of Chapters and Sections

The editors are pleased to include three forewords from eminent leaders in pediatrics, global child and adolescent psychiatry, and healthcare systems. The first four chapters discuss basic principles, provide somewhat ambitious overviews of the specialties of pediatrics and psychiatry, and introduce an approach to psychopharmacology (often complex) in pediatric consultation-liaison psychiatry. The subsequent five chapters discuss common scenarios – not necessarily associated with a single diagnosis or diagnostic category – traditionally encountered in inpatient pediatric consultation-liaison psychiatry. The subsequent six chapters build on the foundation of the previous chapters and illustrate the value that pediatric consultation-liaison approaches – including biopsychosocial formulation, psychological testing and preprocedure evaluation, promotion of adherence and behavioral change, and thoughtful management of complex situations – can bring to multiple specialties and healthcare settings. These chapters also include specific discussion of neurological conditions (which, in some settings, may be initially managed by a psychiatrist as the available physician with specialized knowledge about the brain) and psychiatric genetics. The final seven chapters extend the discussion of pediatric consultation-liaison psychiatry to include global and healthcare systems perspectives. Through the chapter vignettes, we have attempted to cover all major organ systems and all settings where consultation-liaison psychiatrists may practice. At the end of the textbook, quick-reference appendices are provided on the topics of screening tools, teaching tools, and talking points for making the case for pediatric consultation-liaison psychiatry.

Through the chapter vignettes, the editors hope to illustrate the richness of pediatric consultation-liaison psychiatry and stimulate learning around fictitious but realistic scenarios. We sincerely hope that you will enjoy this textbook and gain knowledge and practical wisdom from the authors, to whom we are deeply indebted for their generous contributions of time and talent.

Further Reading

- Accreditation Council for Graduate Medical Education (ACGME). (2016). https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/409_psychosomatic_med_2016_1-YR.pdf. Accessed 26 Jan 2017.
- Alicata, D., Jacobs, N., Guerrero, A., & Piasecki, M. (2016). *Problem-based behavioral science and psychiatry* (2nd ed.). Cham: Springer.
- Fishman, H. C. (2005). *Enduring change in eating disorders: Interventions with long-term results*. New York: Routledge.
- Koli, R. L., & Guerrero, A. P. (2015). Chapter 32: Consultation-liaison with children and adolescents. In *Handbook of consultation-liaison psychiatry* (pp. 497–519). New York: Springer.
- Kuhn, T. S., & Hawkins, D. (1963). The structure of scientific revolutions. *American Journal of Physics*, 31(7), 554–555.
- Leentjens, A. F., Rundell, J. R., Wolcott, D. L., Diefenbacher, A., Kathol, R., & Guthrie, E. (2011). Psychosomatic medicine and consultation-liaison psychiatry: Scope of practice, processes, and competencies for psychiatrists or psychosomatic medicine specialists. A consensus statement of the European association of consultation-liaison psychiatry and the academy of psychosomatic medicine (vol 52, pg 19, 2011). *Psychosomatics*, 52(3), 301–301.
- Levenson, E. A. (1972). *The fallacy of understanding*. Hillsdale: Analytic Press.
- Minuchin, S., Rosman, B. L., & Baker, L. (1978). *Psychosomatic families: Anorexia nervosa in context*. Cambridge, MA: Harvard University Press.
- Shaw, R. J., Bassols, A. M. S., Berelowitz, M., Bowden, M., Eapen, V., Frank, R., Gao, H., Kamaraju, Y., Mardini, V., Omigbodun, O. O., Schievel, J. N. M., & The Dutch Study Group on Pediatric Consultation/Liaison Psychiatry. (2010). Chapter 1. Pediatric psychosomatic medicine. In R. J. Shaw & D. R. DeMaso (Eds.), *Textbook of pediatric psychosomatic medicine* (p. 3). Washington, DC: American Psychiatric Publishing.