

Systems Issues and Considerations

Deirdre A. L. Caplin, Laura M. Bennett-Murphy, and Anne E. Kazak

The Affordable Care Act (ACA) and associated advancements in healthcare policy are rapidly shifting the focus of healthcare toward interprofessional, integrative approaches. These models of care are enriched by psychological and systems theory that informs our understanding of the integrative and reciprocal nature of physical and behavioral health (Brown et al., 2002; Rozensky & Janicke, 2012). In addition, the majority of health risk factors, illness management activities, and medical decisions are influenced by behavioral processes. Thus, pediatric psychologists' expertise in interpersonal relationships and processes, analysis of individuals in context, and clinical outcomes research may promote the development of more effective and efficient healthcare systems (Janicke, Fritz, & Rozensky, 2015; Ward, Zagoloff, Rieck, & Robiner, 2018). Consultation-liaison (CL) psychologists are increasingly present in myriad medical settings:

D. A. L. Caplin () · L. M. Bennett-Murphy
Department of Pediatrics, University of Utah School
of Medicine, Primary Children's Hospital,
Salt Lake City, UT, USA

e-mail: Deirdre.Caplin@hsc.utah.edu

A. E. Kazak

Center for Healthcare Delivery Science, Nemours Children's Health System, Wilmington, DE, USA

Department of Pediatrics, Sidney Kimmel Medical School of Thomas Jefferson University, Philadelphia, PA, USA medical hospitals, inpatient subspecialty treatment teams, medical subspecialty clinics, primary care clinics, and traditional psychological clinics. CL may represent the most active collaboration between medical providers and psychologists (Carter et al., 2009). Understanding the ways in which embedded systems affect patients and patient care is critical for providing quality care. This chapter presents some of the ways in which psychologists may affect the systems in which we work and how systems routinely affect the nature of a pediatric psychologist's work.

The major activities of CL psychology within medical systems include the following:

Screening, assessment, and diagnosis. A majority of primary care visits involve psychological concerns that typically go unaddressed or untreated (Wissow, van Ginneken, Chandna, & Rahman, 2016). Improving partnerships among key collaborators—providers, patients, families, and psychologists—promotes access to standardized screening, formal assessment, and diagnosis. This may result in earlier identification of mental and behavioral health disorders, saving significant costs and human suffering.

Health promotion. Health behaviors, beliefs about illness, and access to preventative care are strongly related to health outcomes.

Psychologists have demonstrated the utility of evidence-based programs (Weisz, Doss, & Hawley, 2005) in promoting school achievement, abstinence from drug use, reducing teen pregnancy, curbing bullying, and fostering resilience in the face of adversity. In healthcare settings, prevention strategies also include parent training, psychoeducation, and changes in systems (e.g., advocating for healthy school lunches, later start times, or recess).

Behavior change. Understanding the barriers that exist for implementation of change, where patients are in the change process, and working with resistance are skills psychologists bring to our work. Often, the patients that medical providers find most difficult are the very patients with whom psychologists are trained to work (Gordon-Elliott & Muskin, 2010; Mack, Ilowite, & Taddei, 2017). Physicians often feel ill-equipped when working with difficult patients or recognize that they have little time to address the array of medical and psychosocial concerns of patients (Gordon-Elliott & Muskin, 2010; Johansen et al., 2014; Mack et al., 2017). Psychologists integrated into the healthcare team are able to provide the much-needed behavioral interventions to improve quality of care at the time and place patients present.

Quality improvement, systems design, access, and education. Psychologists' clinical and research skills allow for evaluation of treatment efficacy, with a view toward improving the healthcare delivery systems. With the advent of medical homes and strides toward greater integration of physical and behavioral health, psychologists have the opportunity to reach a larger audience. Further, they have the opportunity to educate and supervise other disciplines (medicine, social work, physical and occupational therapies (PT/OT), education, nursing) promoting the role of biopsychosocial factors in health and illness (Rosen et al., 2018; Wissow et al., 2016). Finally, psychologists have a strong knowledge base in teams and group behavior that can be used to promote better teamwork and safer, highquality care (Kazak, Nash, Hiroto, & Kaslow, 2017; Rosen et al., 2018).

One's professional practice and identity as a CL psychologist is shaped over time by a network of systems, both directly and indirectly. Bronfenbrenner's social ecological theory helps explain development of an individual within a series of layered, nested, interacting systems and is a model for medical adherence, health promotion, and healthcare disparities (Bronfenbrenner, 1994; Carter et al., 2018; Kazak, 1989; Seid, Opipari-Arrigan, Gelhard, Varni, & Driscoll, 2009). For the CL psychologist, the social ecological model also provides a frame for how our professional practice and identity develop as a function of our interactions with various nested systems in healthcare (Fig. 1). Delineating the ways in which these interacting systems affect the pediatric patient is necessary for providing care as well as identifying barriers that may interfere with care (Seid et al., 2009). Locating oneself within nested systems is also necessary to maximize interventions, strengthen the healthand promote professional care system, development.

Working in the Microsystem

At the microsystem level, individual relationships with those with whom one interacts on a daily basis (patients, parents, colleagues, and trainees) collectively shape the environment within which you work.

Relating to Patients and Families

The CL psychologist has a core relationship to the individual patient that influences what occurs at all levels of the system. In pediatrics, patient-provider and parent-provider relationships can be unique and distinct from one another. In part, the psychologist is tasked with creating awareness and understanding of the core influences of parents on children and children on parents in the context of healthcare encounters, as these relationships may facilitate or interfere with care. Advising the patient and family on the psychological determinants and sequelae of disease and

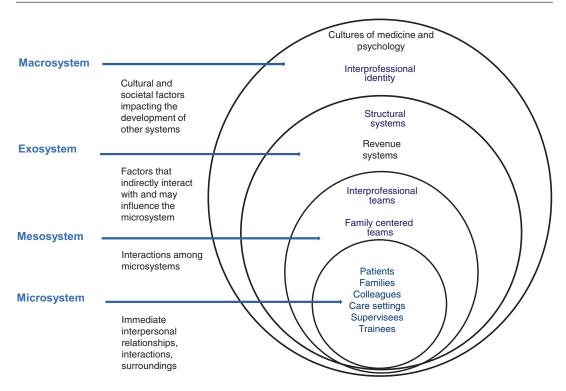


Fig. 1 A social ecological approach to systems in pediatric consultation liaison psychology

the potential benefits of behavioral health interventions, for example, can improve physical and mental health (Brown et al., 2002; Klein & Hostetter, 2014). However, for the message to be heard, it needs to be salient and credible and address patient and family concerns. Psychologists are poised to use their relational skills, active listening, reflecting, and reframing to encourage rapport and positive communication within the family and between the family and their care providers.

The potential benefit of behavioral health integration in pediatric care is unknown to most patients and their families. Although 70–80% of pediatric subspecialty visits involve a behavioral health component, patients and families are usually highly focused on the health issue at hand, rather than thinking about broader biopsychosocial aspects of health, illness, and healthcare (Sulik & Sarvet, 2016). They may not anticipate nor are they explicitly seeking psychological treatment, especially for concerns related to medical symptoms (e.g., pain, fatigue) or illness management (e.g., diabetes, asthma, IBS). The

majority of families leave subspecialty visits without an understanding of how behavioral issues may be impacting their child's health and without a referral for psychological treatment to promote health and decrease distress (Klein & Hostetter, 2014). Parents often have mixed feelings and some discomfort about addressing mental health concerns with their pediatrician. Psychologists have a role to play in fostering relationships with patient and providers to reduce the variability that exists in acceptance of behavioral healthcare, independent of where services are located (Wissow et al., 2016).

Relating to Colleagues

In medical settings, a psychologist relies on their professional relationships with other healthcare professionals to facilitate integration of behavioral health practices. Working side by side with physicians, nurses, and therapists in other disciplines, interpersonal interactions are critically important to how one is recognized individually and how well one represents his or her profession.

Like patients and families, physician expectations and attitudes about mental health can challenge the CL psychologist. For instance, interviews conducted with subspecialty physicians in hospital settings indicate that many are skeptical of the effectiveness of integrated behavioral health services (Johansen et al., 2014). Even for those physicians who agree that psychological health is an important aspect of medicine, there is often a gap between awareness and clinical practice (Johansen et al., 2014). A large survey of physicians in a variety of outpatient specialties found that the vast majority of physicians (68% of pediatric, 70% of family medicine) recognized psychosocial health techniques in medicine would enhance overall treatment outcomes for their patients. However, analysis also suggested actual practice and use of behavioral health services was less positive for mind-body methods such as therapy and relaxation techniques (Astin, Soeken, Sierpina, & Clarridge, 2006).

In relationships with our medical colleagues, psychologists must focus liaison work on increasing exposure to the evidence base for integration of behavioral health. It isn't enough to provide good clinical interventions; we must work to address misinformation and to promote integrated care. Often, this occurs through informal conversations with colleagues. Psychologists may share articles, information, or suggestions for clinical practices. This may also occur through structured interdisciplinary meetings, round, or care conferences. Participation in medical education (medical school classrooms, resident didactics, institutional grand rounds, etc.) encourages wider dissemination of ideas. Ultimately, the involvement of psychologists at an administrative and policy-making level may provide the greatest push for integration.

Relating to Care Settings

The successful CL psychologist is expected to wear many different hats. For example, in hospital and medical clinical settings, the psychologist is simultaneously a liaison between physical and behavioral health, an expert consultant to care team, a supervisor to various trainees, and a provider of patient care. There are times in practice where individual obligations to these roles are cooperative and smooth. At other times, competing needs in one role may interfere with successful performance in another.

When it works well, the psychologist's involvement can improve access, reduce stigma, and lead to early recognition and treatment of mental health concerns. In primary care, for example, where a majority of visits involve a psychological or behavioral concern, the physician's office is an ideal setting for providing mental healthcare (APA Center for Psychology and Health, 2014). However, across medical settings, practices differ significantly from a traditional mental health environment and require adaptation in care delivery.

Successful implementation of behavioral health services requires that the CL psychologist be explicitly aware of what can realistically be accomplished in a specific clinical environment. As an example, the average outpatient pediatrics practice is a fast-paced environment that thrives on targeted diagnosis and treatment in brief bursts of interaction. Contrary to this, the average mental health practice thrives on longer-term, continuous intervention with a focus on process (Pidano, Arora, Gipson, Hudson, & Schellinger, 2018). As an adjunct provider, the CL psychologist typically does not control or manage time allocation, patient flow, or workload. Thus, some treatment protocols may require adaptation to respond to the demands of the environment. Other concerns, like major depressive disorder, may continue to require referral and treatment in more traditional psychological settings.

Relating to Supervisees and Trainees

In academic medicine, clinical supervision is often "on the fly" while rounding, in the hallway, or at the patient bedside. In medicine, timing is an important teaching tool. When information is provided at a time when it is salient, in small chunks, and by a credible source (i.e., evidence based), the information is better absorbed by the

learner. Supervision models for psychologists, in contrast, often involve dedicated time away from patient care duties, focusing on deeper process issues to guide learning.

The CL psychologist, in their role as teacher, needs to be flexible in their teaching approach, adapting methods to an interprofessional audience that supports integration (Rozensky & Janicke, 2012). Our role in medical education is twofold. First, teaching learners at all levels about the overlapping areas of physical and mental health is paramount to cohesive practice between disciplines. Second, teaching trainees strategies for communicating with patients, families, and each other increases our value and creates an environment for shared responsibility and decision-making (Rosen et al., 2018). The value of learning how to provide and receive a "warm handoff" is often understated in teaching but imperative to collaboration (Buche et al., 2017).

In the fast pace of a medical subspecialty clinic or hospital ward, we must also prepare our trainees to understand their role as a member of a team. Speaking succinctly, responding to a consultation question, teaching medicine trainees of the subtleties that can influence patients and families, and the care they receive are refined skills in CL work. Poor role definition or "turf issues" can be a barrier to integrated mental health and also an opportunity for teaching the next generation of psychologists to focus on shared values and combined competencies in team-teaching environments (Rozensky & Janicke, 2012).

Working in the Mesosystem

The influence of larger teams lies beyond the direct interpersonal impact of practicing in a medical system. Team dynamics and structure are powerful forces that control the relative effect of providers across disciplines.

Interprofessional Team Dynamics

Being part of a team is necessary in healthcare, demanding appropriate skills to function as a team member and interact effectively with others. Teams allow access to a broad pool of perspectives, conceptualizations, capabilities, skills, and shared workload (Bell, Brown, Colaneri, & Outland, 2018). However, teams are neither inherently beneficial nor cohesive. Fostered by cultural training and practice differences between medicine and psychology, colleagues are likely to view you differently than you see yourself (Astin et al., 2006; Pidano et al., 2018). For example, in the context of chronic disease management, there exists a frequent misconception that psychological problems are secondary to medical concerns which neglects the complexities of the biopsychosocial framework (Johansen et al., 2014). Psychology is also at fault for holding a narrow view of professional responsibility. Maintaining this protectionist approach interferes with integration efforts and can thwart the cooperation of any team. Further, fragmented delivery of healthcare services contributes to medical errors and diffusion of responsibility (Young, Olsen, & McGinnis, 2010). Creating a cohesive, integrated team with shared goals takes work and intentionality.

Cultivating collaboration does not have to mean letting go of your diverse knowledge and skills. Teams that are diverse provide the prospect of greater results through exploration of differences in care approach or disagreements in diagnostic formulations. Ward and her colleagues suggest that we can foster collaborative, effective interprofessional teams by exploring and resolving misconceptions, enhancing respect, and recognizing respective skill sets of each other (Ward et al., 2018). Familiarity through regular communication, interest in others' profession, and shared settings (clinical and didactic) are all strategies to improve team communication (Pidano et al., 2018). Openness to adapting intervention strategies to the structure of the team is another effective strategy to promote integration that also meets the goals of a more efficient and costeffective approach to care (Rozensky & Janicke, 2012). Attending to the ABCs of teams (affective and motivational states, behavioral processes, and cognitive states) leads to greater interdependence and effectiveness (Bell et al., 2018).

At times, communication can be hindered if not in close proximity. Services that are not

integrated or even colocated may require virtual collaboration. It is a common complaint among pediatricians that they do not receive follow-up communication from psychologists to whom they refer, despite having expressed interest in knowing about diagnosis and treatment progress (Pidano et al., 2018). Using standardized communications, developing individual relationships, and simply reaching out are all ways of improving relationships with extended team members that have some efficacy (Pidano et al., 2018).

Family-Centered Team Dynamics

The patient (and family) is at the center of any team and is often the most important factor in determining the dynamic of a team. Low motivation, perceived stigma, and lack of insight have all been cited as perceived barriers to communicating with families about psychological concerns (Astin et al., 2006; Johansen et al., 2014). Physicians are often reluctant to engage families in conversations about psychological factors if they feel they do not have the time, expertise, or resources to address them. The CL psychologist has an opportunity to be a source for mental health interventions but is also critical in promoting understanding of all team members of the value added by behavioral health methods. Facilitating partnerships with families around a cohesive plan is difficult if team members are not acting as a single unit. Practically speaking, a parent may have a healthcare agenda that is different from what the patient presents and may influence how care is initiated and received.

A well-developed team is focused on complementing skills of other team members, treating the whole child, and engaging families in assessment and development of a plan of care (Kazak et al., 2017). Effective teams provide all team members with an active role in patient care and management, considering expertise and input from all members. Patients and families are encouraged and expected to participate and partner in care.

Working in the Exosystem

Effective mental healthcare improves medical outcomes and reduces healthcare costs; patients with comorbid mental health concerns add significantly to the cost of healthcare and contribute to poorer outcomes (Klein & Hostetter, 2014). It is also well-known that despite the evidence for integration, it has been difficult to achieve at the practice level, primarily because of how institutions and revenue systems are designed.

Institutional Systems

The majority of pediatric psychologists practice in hospital systems, either children's hospitals or academic medical centers, and are housed in departments of pediatrics or psychiatry (Carter et al., 2018; Rozensky & Janicke, 2012). Institutional policies may promote or interfere with coordinated care. The best practices identified for an integrated care environment are those who practice in organizations where collaboration is a cultural norm (Buche et al., 2017). Communication across disciplines, interdisciplinary training and orientation, and a patientcentered rather than clinician-centered approach are key to alignment in values across disciplines. Organizations are less likely to be integrated if disagreements about provider roles, workflows, and restrictions on patient information sharing exist or logistical problems with reimbursement or adequate staffing persist (Buche et al., 2017).

Traditional clinical workflows and payment structures prohibit rather than promote cooperation in healthcare. Fragmentation of services is common and can affect when and how patients have access to psychological services (Miller et al., 2017). It is possible, for example, to have a patient receive integrated mental healthcare during a medical hospitalization only to find out that same service is not available to them when they discharge. Outpatient clinics may have different financial contracts with insurers than the tertiary care hospital. With carve outs, separate payment

practices, competing funding streams, and variable reimbursement policies, a psychologist's practice may be pushed outside the medical setting (Bachrach, Anthony, & Detty, 2014; Klein & Hostetter, 2014).

State regulatory rules can also impede care provision in some settings. For instance, licensing rules can interfere with cross-discipline supervision, create redundancy in practice, and put constraints on information sharing between providers (Bachrach et al., 2014).

Revenue Systems

CL psychology, like other psychology services, requires tangible institutional support. There are several systems factors that limit a CL psychology service from being completely selfsustaining. These include the business model and priorities of an institution, as well as state and federal policies around reimbursement. First, most reimbursement models only compensate face-to-face time spent with patients. However, it is well-known that a significant portion, as much as 38% of psychologist's time, is spent in nonbillable activities (Bierenbaum, Katsikas, Furr, & Carter, 2013; Carter et al., 2018; Kullgren et al., 2015). Direct service to patients does not account for the many tasks psychologists complete in providing quality care, such as work with family members, health record review, consultation with other providers, patient conferences, care coordination, and disposition planning.

Second, reimbursement may be complicated by the emergent and unpredictable nature of CL consult work. Psychologists respond to concerns before prior authorization for services may occur, increasing the likelihood of denial or loss of revenue (Bierenbaum et al., 2013). And while a medical system, i.e., the children's hospital, may be part of the patient's medical insurance network, the individual psychologist providing inpatient services may not be on the mental health panel, again leading to denial of payment.

The billing codes available to psychologists create another revenue challenge. Health and behavior (H&B) codes were designed to better

capture the services psychologist provides in medical settings. However, they are not wellutilized by psychologists (Kullgren et al., 2015) and have higher denial rates than psychotherapy codes. Insurance companies may deny payment for psychological services when a patient has only a medical diagnosis (Tynen, Woods, & Carpenter, 2009). This is often due to (1) limits set on the number of units allowed to be billed under H&B codes by insurers or (2) disagreements due to "carve outs." The boundary between physical and mental is variable for insurers; some payors only allow medical personnel to bill for medical diagnoses, limiting reimbursement for psychologists providing health and behavior assessments or interventions. Those same companies may not allow for billing of mental healthcare if no psychological diagnosis is present. So, with payors using separate billing and coding practices, provider networks, and record-keeping requirements, supporting the integration of behavioral health and CL services remains difficult to achieve (Klein & Hostetter, 2014).

In short, most CL services cannot be sustained by traditional collection/fee-for-service models (Bierenbaum et al., 2013; Kullgren et al., 2015). "Behavioral health integration is still rare ... in part because there is no financial incentive or administrative advantage to bringing ... standalone operations together" (Klein & Hostetter, 2014, p. 4). That being said, many systems and states across the country are finding creative ways to embrace integrated care delivery for behavioral and physical comorbidities (Bachrach et al., 2014; Buche et al., 2017; Klein & Hostetter, 2014; Miller et al., 2017). In Colorado, for example, Rocky Mountain Health Plans partnered with the University of Colorado Denver and the Collaborative Family Healthcare Association and developed a global payment system for teambased care. This pilot program charges a global fee that accounts for staffing resources and patient complexity. It allows for flexibility in practices, including between visit follow-ups, to lead to greater health. Bachrach et al. (2014) note that after the ACA, more states are reassessing the complex needs of Medicaid beneficiaries. States are providing financial incentives for providers to integrate behavioral healthcare and consolidate billing. Further, some states are moving to "behavioral health carve ins" to promote greater integration and collaboration and to set up specific treatment programs for individuals with serious mental illness.

Healthcare systems continue to move away from fee-for-service models to care models that demonstrate that they are cost-effective *and* that they are providing effective treatment. Psychologists' expertise in the measurement of outcomes may allow healthcare systems, including behavioral health services, to demonstrate efficacy and "value added."

Working in the Macrosystem

Despite the Institute of Medicine's (IOM) conclusions almost two decades ago that lack of integration results in inferior care, behavioral healthcare continues to be invisible and typically separates from medical care (Klein & Hostetter, 2014). In spite of strong evidence that psychological interventions improve outcomes for disease, reduce morbidity and healthcare costs, and improve health promotion, these data are poorly disseminated to patients as well as policy-makers. As a result, the disconnect between healthcare policy and healthcare practice persists (Brown et al., 2002; Klein & Hostetter, 2014).

Cultures of Medicine and Psychology

As implementation of integrative care continues across the healthcare system (tertiary care centers, hospitals, medical subspecialty clinics, and primary care clinics), ways to enhance collaborative practice are sought (Pidano et al., 2018). One of the greatest barriers to integrative, interprofessional practice may be working across cultures. Medical practice has historically been hierarchical, with the attending physician the ultimate decision-maker at the head of a team. Most decision-making is communicated orally. Further, specialization is rewarded. Physicians have been

trained to "stay in your own lane," taking responsibility for medical decision-making within a defined set of parameters (Groopman, 2007). This model has some strengths and also accounts for adverse events (i.e., miscommunication of medication name or dose, loss of critical information.). It is a system that operates primarily on a division of labor and unequal power (Rosen et al., 2018). Integration challenges that model, asking providers to take a broad view of the patient, work interdependently, and share responsibility for treatment and care planning. Again, psychologists' training in culturally informed practice may serve us well as we navigate the medical culture of the healthcare system.

With this new model, everyone has something to learn. Hierarchy can inhibit assertive communication that may prevent errors trainees and allied health providers must learn how to challenge and communicate what they observe. Physicians benefit from a renewed emphasis on cultivating relationships with patients and team members and thinking holistically (Pidano et al., 2018). Psychologists working in a medical environment are expected to learn how to communicate their conceptualization of patients orally in 2–3 min. They also need greater familiarity with medical tests, procedures, language, and acronyms (Schmaling, Giardino, Korslund, Roberts, & Sweeny, 2002). Finally, all may benefit from collaborating clinically and also in research, documenting successes and pitfalls in the care of complex patients. Surface-level diversity (race, gender, profession) is important in the effectiveness of teams, but deep-level factors (personality, conscientiousness, agreeableness, attitudes) significantly affect team processes. These are often discovered only after interacting with someone over time.

Novel educational approaches are emerging to address cultural differences and promote interprofessional care models (see Ward et al., 2018). At the behest of the IOM and then the Institute for Healthcare Improvement (Institute of Medicine, 2010; Ward et al., 2018), more academic medical centers are creating opportunities for trainees from different health practices to

share didactics and training materials, learning activities, and clinical training experiences, in the hopes of fostering appreciation for one another's skills and knowledge. These shared experiences may range from one workshop to a fully developed curriculum (Ward et al., 2018). Best practices for interprofessional education (IPE) continue to emerge. Roles for psychologists in these programs include curriculum design, faculty development, supervising faculty member, and program assessment. Interprofessional education is also emerging in psychology graduate training (Rozensky & Janicke, 2012; Ward et al., 2018). In 2017, the APA Commission on Accreditation expanded prior competencies to include consultation and interprofessional/interdisciplinary skills as a core competency. Psychology trainees must now demonstrate knowledge and respect for the roles and perspectives of other professions, as well as engage with healthcare professionals or interprofessional groups and systems.

Psychology's Interprofessional Identity

A CL psychologist is responsible not only for themselves but also for the reputation and understanding of their profession in the healthcare system. Janicke and his colleagues have underscored the incredible opportunity available to psychologists in the changing landscape of healthcare if we are willing to take ownership of our identity as a profession (Janicke et al., 2015). It is clear that the medical profession perceives us differently than we see ourselves (Astin et al., 2006; Johansen et al., 2014; Pidano et al., 2018). While physicians may be comfortable making a referral to a psychologist for a crisis or clearly identified psychological disorder, they may be less certain how to create space for integrative and collaborative, interprofessional practices within the medical setting. This is in part the fault of our struggles to promote ourselves effectively. Psychologists must take the lead on defining our value in medicine, our role in the patient-centered medical home, and our role in providing high-quality medical care in a value-driven system (Janicke et al., 2015). Our role as educators, advocates, and policy-makers is already woven into current healthcare policy (Institute of Medicine, 2010; National Academy of Engineering and Institute of Medicine Committee on Engineering and the Health Care System, 2005). While these roles are not new, psychologists continue to need to function as ambassadors of the field. Through this process, we may also serve to destignatize working with a psychologist.

The processes described in this chapter highlight the many roles of the CL psychologist: Clinician, Collaborator, Educator, Scholar, Leader, Agent of Change. These roles demand a broad and integrated identity. If CL providers were once called "the guardian of the holistic approach to the patient" (Ajiboye, 2007), we may also be guardians of a holistic approach in healthcare. Psychologists work within the system, but we also work to change the system. Perhaps, the next challenge for the field of CL psychology is to demonstrate the value added by psychologists' participation in healthcare (reduced costs, improved outcomes, reduced morbidity, etc.). Janicke et al. (2015) argue that child and adolescent psychologists must take the lead in advocating for our patients and our profession. APA continues to produce advocacy tool kits to assist providers. While the complexity of the current healthcare system is overwhelming and the future of the ACA is uncertain, psychologists must not be discouraged from presenting evidence-based interventions improve patient health, reduce costs, and improve quality (APA Center for Psychology and Health, 2014; Brown et al., 2002; Janicke et al., 2015; Pidano et al., 2018). Partnering with our medical colleagues to both advocate and to collect data demonstrating cost-benefits may further strengthen relationships, with positive benefit reverberating throughout the levels of the bioecological system. Thus, our identity shifts from a partner in change with the patient to an agent of change within the system.

Conclusions

As articulated a decade ago, there is no health without mental health (Prince et al., 2007). Psychologists are uniquely situated to improve patient care, develop models of interprofessional care, affect current education practices in medicine and psychology, and alter the healthcare systems in which we work. The profound political and social shifts of the last 20 years have led us to a place where psychologists are increasingly present and integrated into medical systems. The biopsychosocial model of health is widely recognized. Nonetheless, a gap remains between knowledge and implementation of best educational, clinical, and structural practices. Data clearly document the economic and health burden of those suffering from psychological disorders (Klein & Hostetter, 2014). The efficacy of psychological interventions in treating these disorders is equally welldocumented (Weisz et al., 2005). While the case for the effectiveness of psychological interventions is well-made, more is needed than skilled practitioners implementing empirically supported interventions. We affect and are affected by factors at all system levels. Psychologists must forge the way for greater co-coordination and comprehensive management of patients at all levels of the medical system. Addressing issues of equity, access, ethics, efficacy, accountability, education, and teamwork in a patient-centered system requires that psychologists embrace leadership roles in myriad settings.

References

- Ajiboye, P. O. (2007). Consultation-liaison psychiatry: The past and the present. African Journal of Medicine and Medical Sciences, 36(3), 201–205.
- APA Center for Psychology and Health. (2014). *Integrated health care*. Washington, DC: Author.
- Astin, J. A., Soeken, K., Sierpina, V. S., & Clarridge, B. R. (2006). Barriers to the integration of psychosocial factors in medicine: Results of a national survey of physicians. *Journal of the American Board of Family Medicine*, 19, 557. https://doi.org/10.3122/jabfm.19.6.557
- Bachrach, D., Anthony, S., & Detty, A. (2014). State strategies for integrating physical and behavioural

- health services in a changing medicaid environment. New York, NY: The Commonwealth Fund. https://www.commonwealthfund.org/sites/default/files/documents/__media_files_publications_fund_report_2014_aug_1767_bachrach_state_strategies_integrating_phys_behavioral_hlt_827.pdf
- Bell, S. T., Brown, S. G., Colaneri, A., & Outland, N. (2018). Team composition and the ABCs of teamwork. *American Psychologist*, 73, 349. https://doi. org/10.1037/amp0000305
- Bierenbaum, M. L., Katsikas, S., Furr, A., & Carter, B. D. (2013). Factors associated with non-reimbursable activity on an inpatient pediatric consultation-liaison service. *Journal of Clinical Psychology in Medical Settings*, 20, 464. https://doi.org/10.1007/s10880-013-9371-2
- Bronfenbrenner, U. (1994). Ecological models of human development. *Readings on the Development of Children*, 2, 37–43. Retrieved from http://www.psy.cmu.edu/~siegler/35bronfebrenner94.pdf.
- Brown, R. T., Freeman, W. S., Brown, R. A., Belar, C., Hersch, L., Hornyak, L. M., ... Reed, G. (2002). The role of psychology in health care delivery. *Professional Psychology: Research and Practice*, *33*, 536. https://doi.org/10.1037/0735-7028.33.6.536
- Buche, J., Singer, P. A., Grazier, K., King, E., Maniere, E., & Beck, A. J. (2017). Primary care and behavioral health workforce integration: Barriers and best practices. Ann Arbor, MI: University of Michigan Behavioral Health Workforce Research Center. Retrieved from http://www.behavioralhealthworkforce.org.
- Carter, B. D., Kronenberger, W. G., Scott, E., & Ernst, M. M. (2009). Inpatient Pediatric Consultation—Liaison. In M.C. Roberts & R. G. Steele (Eds.) Handbook of pediatric psychology (4th ed., pp. 114–129)
- Carter, B. D., Kronenberger, W. G., Scott, E. L., Kullgren,
 K. A., Piazza-Waggoner, C., & Brady, C. E. (2018).
 Inpatient pediatric consultation-liaison. In M. C.
 Roberts & R. G. Steele (Eds.), Handbook of pediatric psychology (5th ed.). New York, NY: The Guilford Press
- Gordon-Elliott, J. S., & Muskin, P. R. (2010). An approach to the patient with multiple physical symptoms or chronic disease. *Medical Clinics of North America*, 94(6), 1207–1216. https://doi.org/10.1016/j.mcna.2010.08.007
- Groopman, J. (2007). *How doctors think* (pp. 33–34). Boston, MA: Houghton Miffin.
- Institute of Medicine. (2010). The healthcare imperative: Lowering costs and improving outcomes: Workshop series summary. https://doi.org/10.17226/12750
- Janicke, D. M., Fritz, A. M., & Rozensky, R. H. (2015). Healthcare reform and preparing the future clinical child and adolescent psychology workforce. *Journal* of Clinical Child and Adolescent Psychology, 53, 1030. https://doi.org/10.1080/15374416.2015.1050725
- Johansen, C., Torenholt, R., Hommel, E., Wittrup, M., Cleal, B., & Willaing, I. (2014). Psychology &

- psychotherapy barriers to addressing psychological problems in diabetes: Perspectives of diabetologists on routine diabetes consultations in Denmark. *Journal of Psychology and Psychotherapy*, 4, 141. https://doi.org/10.4172/2161-0487.1000141
- Kazak, A. E. (1989). Families of chronically ill children: A systems and social-ecological model of adaptation and challenge. *Journal of Consulting and Clinical Psychology*, 57, 25. https://doi.org/10.1037/0022-006X.57.1.25
- Kazak, A. E., Nash, J. M., Hiroto, K., & Kaslow, N. J. (2017). Psychologists in patient-centered medical homes (PCMHs): Roles, evidence, opportunities, and challenges. *American Psychologist*, 72, 1. https://doi. org/10.1037/a0040382
- Klein, S., & Hostetter, M. (2014). In focus: Integrating behavioral health and primary care. *Quality Matters Archive*. New York, NY: The Commonwealth Fund.
- Kullgren, K. A., Tsang, K. K., Ernst, M. M., Carter, B. D., Scott, E. L., & Sullivan, S. K. (2015). Inpatient pediatric psychology consultation-liaison practice survey. Clinical Practice in Pediatric Psychology, 3, 37. https://doi.org/10.1037/cpp0000089
- Mack, J. W., Ilowite, M., & Taddei, S. (2017). Difficult relationships between parents and physicians of children with cancer: A qualitative study of parent and physician perspectives. *Cancer*, 123, 675. https://doi. org/10.1002/cncr.30395
- Miller, B. F., Ross, K. M., Melek, S. P., Davis, M. M., Kathol, R., & Gordon, P. (2017). Payment reform in the patient-centered medical home: Enabling and sustaining integrated behavioral health care. *American Psychologist*, 72, 55. https://doi. org/10.1037/a0040448
- National Academy of Engineering and Institute of Medicine Committee on Engineering and the Health Care System. (2005). A framework for a systems approach to health care delivery. In P. Reid, W. Compton, J. Grossman, & G. Fanjiang (Eds.), Building a better delivery system: A news engineering/health care partnership. Washington, DC: National Academies Press. Retrieved from ncbi.nlm. nih.gov.
- Pidano, A. E., Arora, P., Gipson, P. Y., Hudson, B. O., & Schellinger, K. B. (2018). Psychologists and pediatricians in the primary care sandbox: Communication is key to cooperative play. *Journal of Clinical Psychology* in Medical Settings, 25, 32. https://doi.org/10.1007/ s10880-017-9522-y
- Prince, M., Patel, V., Saxena, S., Maj, M., Maselko, J., Phillips, M. R., & Rahman, A. (2007). No health

- without mental health. *The Lancet*, *370*, 859. https://doi.org/10.1016/S0140-6736(07)61238-0
- Rosen, M. A., DiazGranados, D., Dietz, A. S., Benishek, L. E., Thompson, D., Pronovost, P. J., & Weaver, S. J. (2018). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *American Psychologist*, 73, 433. https://doi.org/10.1037/amp0000298
- Rozensky, R. H., & Janicke, D. M. (2012). Commentary: Healthcare reform and psychology's workforce: Preparing for the future of pediatric psychology. *Journal of Pediatric Psychology*, *37*, 359. https://doi.org/10.1093/jpepsy/jsr111
- Schmaling, K. B., Giardino, N. D., Korslund, K. E., Roberts, L. J., & Sweeny, S. (2002). The utility of interdisciplinary training and service: Psychology training on a psychiatry consultation-liaison service. *Professional Psychology: Research and Practice*, 33, 413. https://doi.org/10.1037/0735-7028.33.4.413
- Seid, M., Opipari-Arrigan, L., Gelhard, L. R., Varni, J. W., & Driscoll, K. (2009). Barriers to care questionnaire: Reliability, validity, and responsiveness to change among parents of children with asthma. *Academic Pediatrics*, 9, 106. https://doi.org/10.1016/j. acap.2008.12.003
- Sulik, L. R., & Sarvet, B. (2016). Collaborating with primary care. In M. K. Dulcan (Ed.), *Dulcan's text-book of child and adolescent psychiatry* (2nd ed., pp. 1075–1087). Arlington, VA: American Psychiatric Association.
- Tynen, W. D., Woods, K., & Carpenter, J. (2009). Integrating child psychology services in primary care. Retrieved from https://www.apa.org/pi/families/resources/primary-care/integrating-services.aspx
- Ward, W., Zagoloff, A., Rieck, C., & Robiner, W. (2018). Interprofessional education: Opportunities and challenges for psychology. *Journal of Clinical Psychology in Medical Settings*, 25, 250. https://doi.org/10.1007/s10880-017-9538-3
- Weisz, J. R., Doss, A. J., & Hawley, K. M. (2005). Youth psychotherapy outcome research: A review and critique of the evidence base. *Annual Review of Psychology*, 56, 337. https://doi.org/10.1146/annurev. psych.55.090902.141449
- Wissow, L. S., van Ginneken, N., Chandna, J., & Rahman, A. (2016). Integrating children's mental health into primary care. *Pediatric Clinics of North America*, 63, 97. https://doi.org/10.1016/j.pcl.2015.08.005
- Young, P. L., Olsen, L., & McGinnis, J. M. (2010). Value in health care: Accounting for cost, quality, safety, outcomes, and intervention: Workshop summary. Washington, DC: National Academies Press.