Section on Pediatrics, APTA

Pediatric Residency and Fellowship Development Resource Manual

SECTION ON
PEDIATRICS
AMERICAN PHYSICAL THERAPY ASSOCIATION

Section on Pediatrics, APTA
1111 North Fairfax Street
Alexandria, VA 22314-1488

Phone 800/999-2782, ext 3254
E-mail: pediatrics@apta.org

www.pediatricapta.org

APTA
American Physical Therapy Association

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Introduction

The American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE) *Evaluative Criteria for Residency and Fellowship Programs* provide specific guidelines for components required for program accreditation. The evaluative criteria are divided into 4 sections: (1) organization, (2) resources, (3) curriculum, and (4) ongoing evaluation. Each section has identified subcategories for which evidence is required. Instructions and examples for each subcategory are provided through evaluative criteria, as well as in the *Application Resource Manual*. Both of these documents, as well as other information related to the accreditation process are available at www.abptrfe.org.

This resource manual has been generated to facilitate ease of development for individuals/facilities considering establishing a pediatric residency program. Essential components to be considered have been identified, along with some specific guidelines for each of the major areas presented. Once these components are identified, developing programs begin the process of creating the evidence manual that is submitted for accreditation. Programs proceed through development of written evidence for each of the evaluative criteria and completion of the accreditation application.

A pediatric residency program incorporates didactic and clinical components that promote advancement of clinical skills and the development of advanced clinical decision making, as well as the application of research knowledge, educational theory, and administrative practices reflective of the *Description of Specialty Practice: Pediatric* (DSP).

Physical Therapy Clinical Residency

A clinical residency is a planned program of post-professional clinical and didactic education for physical therapists, and is designed to significantly advance the physical therapist resident's preparation as a provider of patient care services in a defined area of clinical practice.

- A residency combines opportunities for ongoing clinical supervision and mentoring with a theoretical basis for advanced practice and scientific inquiry.
- A residency is designed to substantially advance a resident's expertise in examination, evaluation, diagnosis, prognosis, intervention, and management of patients in a defined area of clinical practice (specialty).
- A residency may also include community service, patient education, research, and supervision of other health care providers (professional and technical).
- Often, the residency experience prepares an individual to become a board-certified clinical specialist.

Physical Therapy Clinical Fellowship

Fellowship programs in physical therapy are primarily clinical programs that advance a physical therapist's knowledge and skills in patient/client management within an area of subspecialty. Fellowship programs can also be nonclinical, focusing on advancing a physical therapist's career outside of their clinical duties.

Currently, clinical fellowships in neonatology have been developed to promote expertise and specialized training to provide physical therapy services for neonates in the neonatal intensive care unit (NICU) setting.

While this manual was geared toward residency development, many of the resources are also applicable for fellowship development.

Leadership Education in Neurodevelopmental and Related Disabilities (LEND)

LEND programs offer a unique curricular component to pediatric physical therapy residency programs and provide a firm foundation for residency development. While not required for accreditation, the LEND curriculum often becomes embedded in the residency didactic and clinical curriculum to offer leadership and advanced clinical practice training. LEND competencies become a part of the resident evaluation process. Because most LEND programs are different in structure and setting, the LEND components of pediatric physical therapy residencies and fellowships will also vary.

www.aucd.org

I. Identification of Essential Components

The following foundational elements should be identified and considered to begin the process of developing a pediatric physical therapy residency program:

- Organizational/facility support
- Specific goals and objectives for residency program
- Patient/client population (see Practice Settings section below)
- Faculty (see Faculty section below)
- Financial resources (see Financial Resources section below)
- Educational/didactic resources for Curriculum
- Program and resident evaluation methods and tools
- Equipment and materials in practice settings

II. Resource Identification and Component Development

Specific components and requirements are addressed in their entirety in the resources provided by ABPTRFE. The following information is meant to provide an overview to assist individuals interested in developing a pediatric residency program to identify components that are in place or that may need to be developed to allow successful provision of a pediatric physical therapy residency program.

Each developing program will need to assess available components and provide required evidence using documentation specified in the ABPTRFE *Evaluative Criteria* and *Application Resource Manual*.

ORGANIZATIONAL/FACILITY SUPPORT

- Identify umbrella organization(s)
- Mission of residency should be congruent with mission and values of the umbrella organization
- Policies and procedures of the umbrella organization must support the residency
- Information to be reported is specified within criteria outlined in section 1.0 of the ABPTRFE Evidence Manual, with examples available in the ABPTRFE Application Resource Manual

PROGRAM GOALS/OBJECTIVES

- Each program is required to provide goals and objectives (for the program and for each resident) to be addressed, along with the mission statement. Focus and ultimate outcomes to be achieved by the program and by residency graduates will need to be considered and differentiated within goals and objectives
- Definitions for the mission statement, goals, and objectives are provided in the *ABPTRFE Accreditation Handbook*

FACULTY

- Each program should have a designated director/coordinator to manage administrative components of the residency. The director/coordinator serves as the primary liaison between the residency program and the ABPTRFE. The following definition can be found in the ABPTRFE *Evaluative Criteria*:
- Residency Program Director/Coordinator: An individual that is administratively (financially, clinically, and educationally) responsible for the program. The program director does not have to be a physical therapist, however a physical therapist must be present on some level of program administration and actively involved in all aspects of the program.
- Each residency program is required to have faculty in sufficient quantity with expertise in the specialty practice area in order to achieve the mission and goals established by the program.
- At least one residency faculty member must be certified by the American Board of Physical Therapy Specialties (ABPTS). Certification must be current in the designated specialty practice area that is the focus for the residency. Additional criteria exist for multi-site programs.
- At least one ABPTS-certified faculty member with current certification in the designated specialty area for the residency must be involved in all major areas of the residency, including curriculum development, clinical supervision, mentoring, and advising of residents.
- Residency faculty must include clinical faculty, but may also include academic faculty. The collective faculty must possess qualifications necessary to conduct the activities of the program.
- Qualified faculty should be in place to ensure that the focus of the resident's time in the residency is learning-oriented.
- Qualified faculty should be in place to provide opportunities for clinical mentoring, didactic teaching, administration of the program, and fulfillment of any external responsibilities related to the residency.

Residency faculty members are expected to demonstrate competence in their assigned curricular area. Evidence of competence may be demonstrated through history of clinical experience, specialist certification, advanced degrees, research experience, or teaching experience.

PRACTICE SETTINGS

- Begin by exploring local options for clinical practice opportunities in various practice settings to meet curriculum requirements of the DSP. Hospitals, clinics, schools, and more are possibilities. All potential pediatric physical therapy settings and diagnostic populations do not need to be included, though learning content must be incorporated in the curriculum. For example, if access to a child with a neuromuscular disorder is not available, a structured learning module could be developed to cover evaluation, treatment, and outcomes for this disorder.
- Assess availability of a diverse patient population across available practice settings to provide sufficient and appropriate practice opportunities necessary to teach advanced clinical skills and meet requirements of DSP.
- Consider collaborating (formally or informally) with other facilities and agencies in order to provide a diverse experience for the resident.

Patient/Client Population

- Each residency program is required to summarize the numbers of patients seen across diagnostic categories specific to the area of specialty practice.
- A form is provided in the evidence manual, which may be copied to capture information.
- The pediatric patient/client population should be categorized to capture the intent of the DSP using diagnostic categories, impairments, body regions, or practice locations to specify populations seen by residents.
- Sample diagnostic categories and examples of reporting methods for pediatric programs, as well as other specialty areas, are provided in the *Application Resource Manual* Section 2.0 Resources; Evidence 2.1.1.A.

Current Pediatric Residency Models include:

- University-Based LEND with hospital and community collaborations
- Hospital-based LEND with an academic medical center with university and/or community collaborations
- Hospital-based/academic medical center with community and/or university collaborations (non-LEND)
- University-based with hospital and/or community collaborations (non-LEND)

In the pediatric residency models listed above, the entity listed first in the description is considered to be the umbrella organization.

PRACTICE SETTINGS

- A variety of practice settings may be incorporated into models. The following are examples of current pediatric practice settings used in existing models:
    - Inpatient acute or rehab settings
    - Hospital clinics, inpatient and outpatient
    - LEND clinics
    - Schools
    - Community treatment facilities (outpatient clinics, pre-school, etc)
    - Home health
    - Non-profit or for-profit (eg, orthotist, pro bono clinic, DME vendor) community settings
    - Labs and research settings

FINANCIAL RESOURCES

- Establish resident salary and benefits:
  - Many programs provide 70-80% of a new graduate's salary, and hire residents at .70-1.0 full-time equivalent (FTE);
  - Other programs hire the resident full-time and residency training is in addition to their patient care activities (which generate revenue to cover residency expenses);
  - One current program hires at .50 FTE, then provides a stipend through LEND;
  - Most programs provide medical benefits and paid time off;
  - Some programs provide continuing education benefits (funding for conferences)
- Determine expenses:
  - Resident's salary and benefits
  - Administrative costs for residency director (administrative time typically runs a minimum of 4 hours/week)
  - Cost of salary and lost productivity of mentor(s)
  - Indirect costs (supplies, equipment, etc)
  - Continuing education (if included as a benefit)
  - Tuition (if required for didactic training)
  - Malpractice insurance (if not covered by facility)
  - Accreditation Application costs (including costs for site visit)
    - Application fee for 1 to 5 residents (check ABPTRFE website for current fees)
    - Estimate an additional $1000–$2000 for site visit costs
  - Annual residency fee submitted with program annual report (check ABPTRFE website for current fee)
- Determine how much revenue the resident must generate at a specific productivity level in a practice setting(s) in order to cover the residency expenses.
- Some residency programs have additional funding (ie, LEND grant) to supplement salary and other expenses.
- Determine organizational support for financial viability of program. The program is required to describe financial resources for sustainability:
  - Evidence 2.4.1.A: Describe the program's current sources of funding.
  - Evidence 2.4.1.B: Describe the program's plan for assuring funding throughout the period of accreditation.
  - Evidence 2.3.1.1.C: Describe how the program will ensure uninterrupted, quality resident didactic and clinical learning should any of the program's resources be suddenly terminated.

MENTORING

- Mentoring is a critical component of any residency program, incorporating professional relationships wherein experienced professionals guide and provide opportunities for both feedback and discussion to facilitate professional growth. Key points for consideration regarding mentoring within a residency program include the following:
  - Residency mentoring is provided at a post-licensure level of specialty practice with emphasis on the development of advanced clinical reasoning.
  - Residency programs must incorporate a minimum of 150 mentoring hours with 100 of the required mentoring hours occurring when the resident is acting as the primary care provider.
  - The ABPTRFE guidelines for mentoring in residency/fellowship programs provide the following examples of mentoring activities that are acceptable for meeting mentoring requirements:
    1. Examination, evaluation, diagnosis, prognosis, intervention, and outcomes measurement with
       - The mentor as the primary provider
       - The resident as the primary provider
    2. Discussion regarding individual patient/client management, with or without the patient/client present

- Because residents are licensed practitioners, they will participate in varied aspects of patient/client management. While each of those aspects may contribute to the professional development of the resident, many of the activities will not be part of the mentoring component of the residency.
- Examples of learning opportunities NOT considered mentoring are available at: www.abptrfe.org/ForPrograms/Developing/RequirementsFees/Mentoring/
- Suggestions to optimize mentoring:
    - Planned mentoring within the residency will optimize the resident's advancement of knowledge and clinical reasoning in the designated specialty practice area.
    - While mentoring should be provided in an intentional manner, mentors should be prepared to take advantage of unexpected learning opportunities.
    - Mentoring should incorporate feedback and discussion that facilitates development of clinical reasoning beyond entry level.
    - Designated residency mentors will benefit from ongoing support and development of advanced clinical teaching and mentoring skills. Being a residency mentor is not the same as being a clinical instructor.
    - Successful mentoring incorporates a collaborative relationship with the mentor providing the initial impetus to the resident to analyze questions regarding patient care and related activities.
- Evaluation of mentoring is required for accredited programs. Evaluations can be completed by program residents and/or faculty and can include, but are not limited to components such as:
    - Mentoring session format
    - Ability of the mentor to identify appropriate mentoring opportunities
    - Effectiveness of communication between resident and mentor
    - Opportunity for resident's input in mentoring objectives
    - Mentor's ability to model advanced practice
    - Guidance of learning through leading questions or statements for development of critical thinking and problem-solving skills
    - Mentor-resident interaction and partnership
    - Facilitation of resident's ability to self-reflect
    - Ability of mentor to provide timely and constructive feedback
    - Mentoring session outcomes and use of appropriate tools
    - Mentor knowledge and skill
    - Suggestions for mentor development

RESIDENT QUALIFICATIONS

- Residents must have a valid physical therapist license to practice in the state in which the residency exists.
- Consider challenges when the resident is a new graduate and may not have the opportunity to take the licensure exam within the time frame between graduation and the start of the residency program.
- Some residency programs may be challenged by out-of-state tuition costs if the resident is not an official resident of the state.
- Some residency programs require a minimum number of years of clinical practice experience for application.

RESIDENT RECRUITMENT

- The first resident is generally recruited through a local physical therapy education program or facility, and must be established within the residency program at the time of submission of the accreditation application.
- Programs cannot market themselves as accredited programs (for recruitment) until officially accredited by the APTBRFE.
- Once a residency program has submitted an application (developing program) or is accredited (accredited program), they will be listed on the APTA/APTBRFE website.

REMEDIATION AND DISMISSAL POLICIES

- Specific policies and procedures will need to be defined in the areas of remediation and dismissal to ensure an objective process for residents who don't meet the expectations of the program.
- Many facilities have these policies and procedures in place, which can often be adapted for residency programs.
- The Evaluative Criteria include the following requirements:
    - The policies and procedures related to academic retention within the residency/fellowship program include the necessary requirements (ie, passing criteria on examinations, timelines for completion/remediation, etc) for the resident/fellow-in-training to maintain active status within the program through graduation;
    - A policy and procedure related to academic remediation of the resident/fellow-in-training and the criteria for dismissal from the program if remediation efforts are unsuccessful;
    - Nondiscriminatory policies and procedures for the recruitment, admission, retention, and dismissal of students or employees;
    - A grievance policy or mechanism of appeal that ensures due process. All programs must provide residents with a copy of the APTA grievance policy for residents;
    - A probationary period policy, if applicable;
    - A termination policy and procedure that outlines termination of the resident or fellow-in-training that becomes ineligible to practice. This policy also includes the employment status of a resident/fellow-in-training should termination from the program occur;
    - Examples are available in the *Application Resource Manual*.

III. ACCREDITATION PROCESS

- The Application Packet and *Application Resource Manual* are available on the APTA website.

  Application sections include:
  - Organization (supports excellence in practice; mission is congruent with goals of residency program)
  - Resources (sufficient quality and quantity to support program goals)
  - Curriculum (planned program to advance skills, achieve goals of residency program, and support content of the DSP)
  - Performance Evaluation (measure performance and outcomes)
- Once the Accreditation Application is submitted, a review process is initiated which may take a minimum of 4 to 6 months. Upon approval, an on-site visit is scheduled to further evaluate the residency program.
- Following the site visit, a visitor report is submitted for review with the accreditation decision determined by the ABPTRFE.
- Accreditation ensures consistent quality through a formalized process of evaluation and is structured to ensure successful programs.
- Additional benefits of accreditation include:
  - Provision of specific feedback for programs through assessment and review
  - Ensuring compliance with standards of quality in the teaching and clinical practice of physical therapy

IV. CURRICULUM DEVELOPMENT

KEY POINTS TO CONSIDER:

- The curriculum must support the content of the 2011 *Description of Specialty Practice: Pediatric* (DSP).
- The curriculum must demonstrate a translation of knowledge into practice through specific learning activities.
- The curriculum must provide a systematic approach to building advanced clinical practice skills.
- The *Application Resource Manual* will guide curriculum development through documents of evidence necessary to describe curriculum content.
- The residency program/curriculum must be consistent with the mission and philosophy of the umbrella organization(s).

Once the logistics of faculty, setting, and budget are completed, the next step becomes the development of the training curriculum. All residency curriculums will be different due to the unique characteristics of each residency setting. However, for accreditation, each residency must describe a plan for clinical and didactic training that supports the content of the DSP. The curriculum must be defined and systematic to build advanced clinical practice skills. The accreditation application will require each program to provide documented evidence of the appropriate components of curriculum. While the residency curriculum will cover a broad spectrum of practice components, key aspects of the curriculum include:

- Leadership development (already exists in LEND Programs)
- Development of evidence-based practice skills
- Development of critical inquiry and advanced clinical reasoning skills
- Demonstration of professional behaviors
- Advanced knowledge in the foundational, behavioral, and clinical sciences of physical therapy
- Advanced skills in examination, evaluation, and intervention during the care of patients, including tests and measures, prognosis/outcomes, consultation, and education of others (professionals from other disciplines, families, caregivers, communities, etc)

The curriculum and the DSP become integrated through specific documents of evidence in the accreditation application. The curriculum includes clinical, didactic, research, and educational activities. The amount of time dedicated to each of these areas will be determined by the availability of resources, expertise of faculty and mentors, educational opportunities, and more. Below is a general overview of curricular components required in the 2014 Residency Accreditation Application. Examples can be found in the *Application Resource Manual*.

CURRICULUM DEVELOPMENT

Evidence 3.1.2.A – Utilize Form 3.1.2.A to provide the major content areas in the program's curriculum and their relationship to the DSP/DASP/practice analysis. Evidence 3.1.2.A should provide a general overview of the major content areas in the residency curriculum.

Evidence 3.1.2.B – Utilize Form 3.1.2.B to provide an example of a typical weekly schedule for the resident or fellow-in-training. The weekly schedule should identify different components of the curriculum such as direct patient care, didactic training/mentoring, educational activities, and more.

Evidence 3.1.2.C – Provide an outline or flow chart of the sequencing of content in the program's curriculum across the entire residency or fellowship, including both didactic and clinical experiences. Briefly explain the rationale behind the organization and sequencing of the curricular content as well as how the program ensures congruency between the didactic and clinical aspects of the curriculum.

- Sequencing of content will be unique for each residency based on practice settings, contracts, academic school year, availability of resources, etc.
    - School-based and early intervention (EI) services may only be available for a segment of the year.
    - Acute care or hospital outpatient services may be rotations with defined timelines or year-long commitments.
    - Institution academic calendars may dictate some didactic or educational opportunities.
    - Teaching assistance responsibilities (if in the curriculum) will follow a specific academic calendar.

  - Educational presentations and opportunities are typically integrated into the curriculum when available.
  - LEND (Leadership Education in Neurodevelopmental and Related Disabilities) curriculum will be available in some residency programs.
  - A resident's previous clinical/professional experience may determine some aspects of the curriculum.
- Content of the curriculum may be organized into sections as "units/rotations" or "threads" throughout the year. A unit can be a specific focus or a larger amount of time dedicated to a curricular activity for a shorter period, such as 1 month, 3 months, etc. A thread can be a curricular activity that spans most of the residency year (9 or 12 months) and is only a few hours per week. For instance, school-based practice might be 3 days per week for 3 to 6 months in some residencies, or 4 hours per week for 9 months in others.
- A description of the sequencing of the content needs to address how the major content areas are related to specific residency activities. A timeline will demonstrate how all of the required components will be sequenced within the resident year.

CURRICULUM DEVELOPMENT

Evidence 3.1.2.D – Provide the course syllabi, including course description, educational objectives, requirements for successful completion, and teaching methods. Evidence 3.1.2.D requires that residency programs detail content of learning modules and academic courses in the accreditation application (outline of module content, course syllabi, etc). See examples in the *Application Resource Manual*.

Evidence 3.2.2 – Use Form 3.2.2 to list the number of hours dedicated to each instructional method used to achieve the performance outcomes. Provide the average number of one-on-one mentoring hours. For multi-site programs, a separate form is required for each clinical site. For new residency programs, this form provides a breakdown of the curriculum. Instructional methods must be listed separately and include a proposed number of hours over the residency year. See examples in the *Application Resource Manual*.

- Instructional methods may include:
  - Mentored clinical practice
  - Classroom/academic courses
  - Learning modules on specific topics or problem-based learning (PBL) case/journal article reviews
  - Independent or group assignments/projects
  - Research activities
  - Teaching assistant activities in DPT program
  - Grand rounds
  - Journal club
  - Continuing education conferences
  - Presentations/inservices
  - Case study development

- Minimum requirements:
  - 75 hours of didactic instruction
  - 150 hours of clinical mentoring/instruction with 100 hours of the resident being mentored during direct clinical practice (while treating patients); direct observation of resident by mentor during patient care; this is distinguished from mentoring via case discussion and review which does not involve direct patient care. (See section on mentoring for additional information.)
  - Minimum of 1,500 total hours in program (all instructional methods)

CURRICULAR ACTIVITIES—Addressing the DSP

Pediatric residency programs provide access to a variety of learning experiences that address components of the Pediatric DSP. Some sections of the DSP—Section I (Knowledge Areas) and Section II (Professional Roles, Responsibilities, and Values)—have typically been more challenging for programs in identifying areas of application. Following is a list of some of the curricular activities used to integrate components of the DSP for sections I and II in currently accredited programs. Section III of the DSP focuses on practice expectations and incorporates specific examples of application. Developing sites have typically not experienced difficulty identifying activities to address Section III of the DSP; therefore, those items are not addressed in this resource document. Examples of curricular activities to address components of sections I and II of the Pediatric DSP include:

1.Section I of the *Description of Specialty Practice: Pediatric:* Knowledge Areas—Examples of Curricular Activities

a. Foundation Sciences

- Weekly case conference meetings: Patient cases are presented and discussed along with a detailed review of their disease, treatments, course, etc. Patient case discussions utilize a review of systems approach.
- Regular interaction with physicians, nurse practitioners, or specialty teams who manage medications for patients and solve complex issues.
- Exposure to patients across different practice settings while collaborating with professionals.
- Lectures on the etiology of common developmental disabilities.

b. Behavioral Sciences

- LEND lectures (psychological factors, ethics in DD, family systems, public health, etc)
- Teaching assistant responsibilities in a DPT program
- Public health didactic information

c. Clinical Sciences

- Mentored clinical practice across multiple settings and diverse patient population
- Assigned readings and reflective assignments in identified areas of study

d. Critical Inquiry Principles and Methods

- Mentored research project (exposure to IRB process, data collection, analysis, and presentation)
- Institutional course on regulatory component of research
- Didactic learning through the course, along with evidence-based examination and outcomes in pediatric physical therapy. Several courses have specific assignments related to critical analysis of literature.
- Complete a formal case report (potentially for publication) using APTA author guidelines.
- Residents complete a case study of a client on their caseload. They use evidence to guide formulation of a clinical question, collect data over the course of 3-4 months, and prepare a poster presentation regarding their findings. An experienced researcher guides this process.

2. Section II of the D*escription of Specialty Practice: Pediatric:* Professional Roles, Responsibilities, and Values—Examples of Curricular Activities From Existing Programs

a. Professional Behaviors

- Participate on interdisciplinary teams
- Formulate didactic and mentored experiences on advocacy
- Schedule meetings with residency director to discuss progress

b. Leadership

- LEND leadership curriculum
- Community-based committee participation for issues on local accessibility
- Community-based developmental preschool screenings
- Camp counselor for population-specific summer camp
- Take part in developing and leading performance improvement projects in the clinical practice setting
- Take part in interdisciplinary clinic in which residents take the role of coordinator for a client
- Attend faculty development seminars regarding leadership topics (typically involves team dynamics, implementing change, analysis of personality types, etc)

c. Education

- Teach assistant responsibilities in a DPT professional program
- Gain mentor experience as a clinical instructor for a physical therapist student
- Attend and complete APTA Clinical Instructor Credentialing and assist with clinical education
- Participate in professional DPT education (guest lecturer) and in continuing education through the development of distance learning and continuing professional development modules
- Participate with professional DPT students to assist with labs, lectures, and case studies. Participate in a problem-based learning module, acting as a facilitator (for professional DPT students)
- Develop patient/family educational materials
- Develop professional poster presentations for local/national conferences
- Provide lectures and presentations to peers and other professionals

d. Administration

- The resident is part of the residency council with bi-annual meetings
- The resident participates in professional business meetings at national conferences or local groups related to children with disabilities
- Mentored exposure and day-to-day administration of our department
- Serve as a liaison with third-party payers for physical therapist services and equipment at least once during the year
- Complete performance improvement projects
- Participate in residency faculty meeting to assist with ongoing program development and modification
- Attend LEND interdisciplinary activities/clinics
- Participate in clinical program development
- Participate in formal continuing education program development; complete continuing education unit applications
- Develop a policy or procedure for a clinical department

e. Consultation

- Home-based evaluations for equipment and other needs
- Community-based preschool screenings
- Case-based learning in collaboration with other professionals/disciplines
- Consultation teams in school-based setting
- Community-based activities such as FUN Fitness (fitness screenings for Special Olympics athletes)
- Serve as a consultant for community-based recreation programs for children with disabilities
- Child-check screenings in the community

f. Evidence-Based Practice

- Mentored journal clubs, local pediatrics special-interest groups, rounds, and post-clinic staffing
- Complete didactic courses
- Complete case-based assignments
- Search for articles to support decisions with at least 1 client/week
- Complete case study project utilizing evidence
- Participate in a monthly pediatric physical therapy journal club, reviewing current publications (clinical bottom line formats)
- Participate in a local pediatric special-interest group that reviews evidence to practice topics
- Provide evidence-based presentations to local therapists and other professionals
- Participate on teams to develop evidence-based clinical guidelines or algorithms
- Complete LEND leadership projects, incorporating evidence into project development
- Develop a clinical program using evidence to establish protocols and practice guidelines within the program

e. Critical Inquiry Methods

- Complete a clinical research project
- Participate in projects with residency faculty or researchers to engage in multiple aspects of the research process (grant writing, IRB, data collection, and analysis)
- Complete a case study design with mentor, data collection, and presentation of findings in poster format

CURRICULAR ACTIVITIES

Flexibility/creativity in approaching application of the DSP will allow developing programs to take advantage of available opportunities for addressing the components of the DSP.

Example of using resources in a specialty clinic to address DSP components:

The following is a specific example of an application used to demonstrate implementation of the DSP components in a pediatric specialty clinic for patients with myelomeningocele. Opportunities occur across 4 weeks with residents attending the clinic once per week. While not all residency programs have a learning opportunity or component that will address all aspects of the DSP, this example demonstrates how a program applied learning opportunities in a specialty clinic setting. Clinical applications from section III of the DSP are addressed in addition to the components from sections I and II that are mentioned in previous examples.

- **Foundation Sciences**: Review the etiology and pathophysiology of myelomeningocele.
- **Behavioral Sciences**: Review the controversy of intrauterine neurological repair.
- **Clinical Sciences**: Discuss the implications of integumentary issues and wheelchair positioning and mobility.
- **Professional Behaviors**: Assess self-directed learning in multidisciplinary clinic setting.
- **Leadership**: Facilitate translation of evidence to practice in clinic setting.

- **Education**: Provide systematic education to clinic staff based on results of literature review.
- **Administration**: Evaluate the clinic process, flow of patient care, and team communication.
- **Consultation**: Provide resources for home modifications to improve mobility independence.
- **Evidence-based Practice**: Perform a literature review on the energy efficiency of walking versus manual wheelchair use, and determine criteria for selecting one method over the other.
- **Critical Inquiry**: Participate in collecting and interpreting outcome data from current clinical tools and determine if information is effective for measuring meaningful clinical outcomes.
- **Examination**: MMT, ambulation, wheelchair management, ADLs, integumentary integrity, sensory integrity, orthotic device use/benefit, etc.
- **Evaluation**: Identify activity limitations and participation restrictions.
- **Diagnosis**: Identify common functional limitations amenable to intervention.
- **Prognosis**: Discuss evidence related to prognosis for sustainable employment as an adult.
- **Interventions**: Discuss recommendations for muscle strengthening and gait based on evidence.
- **Outcomes Assessment**: Determine if current clinical tools are valid and reliable for measuring clinical changes in specific areas of function.

CURRICULAR ACTIVITIES

Examples of current activities used for addressing early intervention (EI) components:

- Contract with local education service districts, with the resident spending half a day/week in schools.
- Participate in individualized education program (IEP) planning and meetings.
- Assist students with current curriculum (while mentored by 1 of 2 school-based PTs currently on the residency council).
- Didactic learning on IDEA, EI, and school-based practice (LEND curriculum or learning modules).
- Onsite EI and preschool program; resident spends 4 hours per week in the program for 8-9 months.
- Collaboration agreement with a local private practice that serves both EI and schools; the resident practices in this setting for a minimum of 8 hours/week for 12 weeks.

Resources

American Board of Physical Therapy Residency and Fellowship Education (ABPTRFE). http://www.abptrfe.org
American Board of Physical Therapy Specialties. *Description of Specialty Practice: Pediatrics.* Alexandria, VA: American Physical Therapy Association; 2011.