Competency-Based Early Clinical Education Experiences for Physical Therapy Students

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Abstract
Purpose: This paper describes the development, implementation, and outcomes of two courses for entry-level, master's degree earning physical therapist students. The courses were designed to address perceived barriers to early clinical education experiences, and to proactively provide appropriate structure for the imminent transition to a clinical doctoral degree curriculum. **Methods:** The courses were conducted one full-day/week during the first and third terms of the curriculum. A variety of clinical sites were utilized. Students passed competencies for skills appropriate for physical therapy aides prior to the onset of the clinical education course. During clinical assignments they performed those duties, and also completed specific learning activities designed to enhance coursework from the academic setting while minimizing demands on clinicians. Students completed worksheets designed specifically for each activity and attended synthesis seminars led by academicians at the university. **Results:** Assessments conducted through written course evaluations and focus groups with a subset of students, clinical instructors, and academic instructors indicated that overall the courses met our objectives. Benefits and challenges were identified. **Discussion:** Although early clinical education experiences are important for progressive development of students' skills, these experiences pose challenges, particularly related to increased productivity demands on clinicians. **Summary:** Courses described in this article provided effective early clinical education experience while largely shifting responsibility for contextualization of learning from clinicians to academicians. As some allied health professions transition to doctoral level education, this model allows academic instructors to become more responsible for student learning in the clinical setting.

Introduction
The importance of clinical education as a component of professional physical therapy education has been well documented.[1-3] The experiences provide an opportunity to apply didactic theory and laboratory skills to the clinical population. The clinical setting creates an opportunity for instructors to provide relevant feedback in a manner not possible in classroom or laboratory settings.

Physical therapy clinical education has historically occurred in facilities external to the formal learning institution and the

two basic approaches have been described as concurrent and nonconcurrent.[2] The concurrent approach refers to experiences that occur as a day or part of a day during each week during the didactic education. Nonconcurrent clinical education involves full-time experiences scheduled as a block either between didactic units and/or following completion of the entire didactic curriculum.[3]

The concurrent pattern of clinical education appears to facilitate learning, reinforce skill development, and promote

student enthusiasm for learning.[2] This type of experience permits limited clinical practice with gradual acquisition of skills and professional behaviors. Such clinical experiences provide opportunities to apply educational theories regarding knowledge integration while stimulating interest in and contextual application for classroom learning.[4] Concurrent part-time clinical assignments may also build the student's confidence for skills in the affective and psychomotor domains.[5]

Grisetti described a part-time concurrent experience that involved structure and guided learning experiences for students' first clinical contact.[6] The participating Clinical Instructors (CIs) indicated that the structured format clarified the tasks to be accomplished each session, which is especially important during early experiences when clinical instructors are trying to evaluate students' knowledge and skills levels. Thus, part-time concurrent clinical education becomes a logical choice early in a student's academic career.

Some challenges related to concurrent models of clinical education have been noted. These models may be difficult to schedule and clinical sites may prefer full-time students to part-time students.[2] Acceptance of students in the clinic may also be limited by constraints related to finances, time management issues, and staffing patterns.[7] Additionally, the main purpose of clinical education is knowledge integration i.e., understanding academic knowledge within the context of actual patient care.[4] Knowledge integration, however, is not an automatic process and requires instructional planning and skillfully delivered clinical teaching. Providing an organized structure, opportunity for practice and repetition, and connections between new information and prior knowledge are all techniques that facilitate knowledge integration but require instructor resources that may not be available in the clinic due to the current demands of the health care environment.

Ideally, clinical and academic faculty should work together to coordinate student learning in allied health care professions. [2] Academic faculty members provide relevant theoretical frameworks for patient care necessary to provide excellence in patient care management. They are also responsible for guiding the development of professional behavior, appropriate communication skills, and the ability to participate in administrative and consultative activities. CIs reinforce these concepts in the clinical setting with actual patients. Contemporary fiscal issues affecting both higher education and healthcare may result in a struggle with the shared responsibility and cost for training future physical therapists.[1] It is therefore essential that healthcare profession educators use creativity to develop cost effective yet meaningful clinical learning experiences. This paper describes the development, implementation, and outcomes of an alternative model for early, concurrent, part-time clinical education that is responsive to the needs of both students and clinical sites.

Background
Historically, the Department of Physical Therapy at The University of Alabama at Birmingham conducted early clinical education experiences for students consisting of two 2-hour structured clinical visits during each of the first three quarters of the educational program, and a 4-week full-time clinical education experience following the 3rd term directed towards basic clinical skills (e.g., patient transfers, gait with assistive devices, application of thermal agents) and basic examination skills for musculoskeletal disorders of the extremities. The decision to develop a new format came from the following concerns about the previous approach: 1) students had limited clinical exposure and subsequent application of academic coursework during the first three terms of the educational program; 2) except for the Co-Academic Coordinators of Clinical Education (ACCEs), Academic Instructors (AIs) had limited participation in the clinical education component of the educational program; 3) student clinical experiences varied greatly during the first full-time clinical rotation from primarily observing the CI to independently conducting patient examinations, evaluations and intervention planning; 4) a decreasing number of clinical sites were willing to take students for a full-time, nonconcurrent, "basic skills" clinical experience; and 5) CIs had less time to plan and supervise integration of material due to increasing productivity demands. An opportunity existed to easily change formats as the educational program was converting from a quarter to semester format, and subsequently the curriculum was undergoing multiple modifications related to the conversion. Additionally, The American Physical Therapy Association established a 2020 Mission Statement that describes future clinicians who are prepared at the doctoral level.[9] In compliance, our program was also planning an imminent transition from a masters degree to a clinical doctoral program. Those plans required that we assume responsibility for and develop new strategies to raise standards for all courses including clinical education.

Methods
Course Description
The courses were designed for students enrolled in a two-year educational program for physical therapists at The University of Alabama at Birmingham, a school located in a large metropolitan setting with a relatively large number of clinical sites available. The part-time, concurrent, early clinical education courses took place one-day each week during the final 7 weeks of the first semester of the program (Clinical Education I) and one-day each week during the entire 14-week third semester (Clinical Education II). At the time of course implementation, 35 students were enrolled in the first year PT class. Clinic

visits were scheduled for an entire work day (i.e., 8 hours) on Wednesdays, and no academic coursework was scheduled on those days. A 2:1 student to clinical instructor ratio was planned to facilitate student to student interaction, although a few clinics would initially only accept a single student. Typically, two students were assigned to an acute care, neuro-rehabilitation or an outpatient (OP) musculoskeletal setting. Those assigned to an OP musculoskeletal setting for the first course (Clinical Education I) would be assigned to either an acute or neuro-rehabilitation setting for the second course (Clinical Education II) and visa versa. During each of the eight-hour assigned clinic visits, students performed many patient care activities typically assigned to physical therapy aides. As preparation for these activities, prior to participation in the courses, students were required to pass competencies for these PT aide duties and the list of skills mastered were provided to clinical sites. Additionally, during each clinical visit, students completed 1 or 2 learning assignments related to basic clinical skills, examination procedures, or other coursework already covered in the academic setting. The 1 or 2 learning assignments for each week comprised a learning module (see Table 1 for module topics

addressed for both courses). The learning assignments were designed to be as self-directed as possible yet direct supervision from the CI was required at times in accordance with safety and legal standards. Clinical instructors and students were permitted some flexibility within the sequence of learning modules to accommodate realistic clinical learning opportunities, though the expectation was that the prerequisite modules be covered prior to the synthesis seminar regarding those topics. Following the clinic visits, the synthesis seminar was conducted at the academic institution to facilitate discussion about learning assignments between AIs and students. Typically, the synthesis seminars consisted of three academic instructors and 10-12 students. The AIs were assigned to seminar groups containing their student advisees to promote greater student/faculty advisor interaction. The AIs role was to contextualize the learning experiences, linking material from the classroom to the clinical setting. They also served as role models for discussions regarding professional development including guidance regarding progression of student skill and responsibility from the level of supportive aide to professional caregiver.[6]

Table 1. Module Topics Addressed For Both Courses

Module	Clinical Education I /Topics	Clinical Education II /Topics
Module 1	Orientation to the clinical setting and roles of the physical therapist in the clinic; Infection Control	*Orientation to the clinic setting and roles of the physical therapist in the clinic; Risk management in the clinic*
Module 2	Wheelchair parts/maintenance/mobility; patient transfers; Using the *Guide to Physical Therapist Practice:* Five elements of patient/client management	Conducting a history and systems review; ADL/IADL scales and functional self-reports; Using effective communication skills during patient interviews
Module 3	Assessing vital signs; Cardiopulmonary responses to endurance activities and resistive exercise/Cardiovascular system adaptations to postural changes	Use of physical agents (other than superficial thermal agents); Documentation
Module 4	Gait with assistive devices; Motor learning, task analysis	Goniometry and MMT
Module 5	Use of superficial thermal agents; Palpation of bony structures	Therapeutic exercise
Module 6	Passive range of motion; Movement analysis	Open visit (no specific learning experience planned)
Module 7	Conducting a history and systems review; ADL/IADL scales/indexes and functional self-reports; Using effective communication skills during patient interviews	Examination, evaluation, and intervention planning of a patient with musculoskeletal dysfunction of the hip or knee.
Module 8		Examination, evaluation, and intervention planning of a patient with musculoskeletal dysfunction of the hip or knee.
Module 9		Pharmacology; Cultural Diversity
Module 10		Examination, evaluation, and intervention planning of a patient with gait dysfunction
Module 11		Examination, evaluation, and intervention planning of a patient with musculoskeletal dysfunction of the spine
Module 12		Examination, evaluation, and intervention planning of a patient postural dysfunction
Module 13		Examination, evaluation, and intervention planning of a patient with secondary diagnosis of cardiopulmonary dysfunction
Module 14		Examination, evaluation, and intervention planning of a patient with postural instability (balance) dysfunction

Results
Written Course Evaluations
Results from written course evaluations from both courses are presented in tables 2 and 3 for students, and tables 4 and 5 for CIs. These findings suggested that CIs were positive about elements of both courses. Students were likewise positive about course elements with two exceptions. Specifically, students were less positive regarding the learning worksheets (Clinical Education I) and course manual (Clinical Education II).

Table 2. Results From Student Course Evaluations For Clinical Education I

Clinical Education I Student Course Evaluation - N = 28	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The clinical experiences were beneficial.	96%	4%	0%	0%	0%
2. The specific planned learning experiences helped apply knowledge from the classroom to the clinical setting	36%	39%	11%	14%	0%
3. 4. I used the Clinical Education I manual to <u>prepare</u> for each day I was scheduled to be in clinic	18%	61%	0%	18%	4%
5. The PT Clinical Education I manual was helpful as I prepared for my clinical experiences	18%	39%	29%	14%	0%
6. The worksheets I completed were meaningful tools for learning	14%	11%	18%	46%	11%
7. The Clinical Education I synthesis seminars were beneficial.	43%	39%	14%	4%	0%

Table 3. Results From Student Course Evaluations For Clinical Education II

Clinical Education II Student Course Evaluation – N = 10	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The clinical experiences were beneficial.	80%	20%	0%	0%	0%
2. The specific planned learning experiences helped apply knowledge from the classroom to the clinical setting	10%	50%	10%	10%	20%
3. I used the Clinical Education II manual to <u>prepare</u> for each day I was scheduled to be in clinic	20%	30%	10%	30%	10%
4. The Clinical Education II manual was helpful as I prepared for my clinical experiences	0%	40%	30%	30%	0%
5. The worksheets I completed were meaningful tools for learning	0%	50%	30%	10%	10%
6. The Clinical Education II synthesis seminars were beneficial.	30%	30%	30%	10%	0%

Table 4. Results From Clinical Instructor Evaluations For Clinical Education I

Clinical Education I CI Evaluation of Academic Support N = 19	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The student academic preparation for the assignment was adequate.	53%	42%	5%	0%	0%
2. The students contributed meaningful support to the staff and patients while at our clinic.	63%	21%	16%	0%	0%
3. The manual provided was helpful.	50%	22%	22%	6%	0%
4. The role of the CI was clearly outlined in the manual.	61%	28%	11%	0%	0%
5. The demands of the CI were manageable.	58%	26%	16%	0%	0%
6. The support provided by the student compensated for the demands on the CI.	53%	26%	16%	5%	0%
7. The learning experiences were feasible in our setting (recognizing a wide range of experiences was meaningful)	58%	26%	11%	5%	0%

Table 5. Results From Clinical Instructor Evaluations For Clinical Education II

Clinical Education II CI Evaluation of Academic Support N = 20	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The student academic preparation for the assignment was adequate.	65%	30%	0%	0%	5%
2. The students contributed meaningful support to the staff and patients while at our clinic.	73%	11%	11%	5%	0%
3. The manual provided was helpful.	40%	30%	15%	15%	0%
4. The role of the CI was clearly outlined in the manual.	52%	32%	11%	5%	0%
5. The demands of the CI were manageable.	55%	30%	10%	5%	0%
6. The support provided by the student compensated for the demands on the CI.	65%	20%	5%	10%	0%
7. The learning experiences were feasible in our setting (recognizing a wide range of experiences was meaningful)	50%	35%	5%	10%	0%

Focus Group Findings

Students

The students stated that they did use the course manual to prepare for visits. Overall they were displeased with the learning activity worksheets, describing those for the first course (Clinical Education I) as too detailed and those for the second course (Clinical Education II) as too vague. The students also expressed a desire to have easy access to all the resource material provided in the CI and AI course manuals despite the fact that it directly related to academic coursework they had already addressed. In general, the students did not believe that all learning objectives were met because of the specificity of the settings they were assigned (e.g., it was difficult to plan a detailed musculoskeletal examination in an acute care setting). They believed that this problem could be overcome by only assigning students to acute care and neuro-rehabilitation settings for the first course (as Clinical Education I focused more on performing basic skills) and only assigning students to OP musculoskeletal settings for the second course (as Clinical Education II was focused more on examination skills of musculoskeletal problems). The students also wanted more flexibility regarding when to address specific learning activities. They believed that opportunities might arise during weeks when a particular activity was not scheduled, and they wanted to take advantage of the better learning situation. The students were pleased with the synthesis seminars conducted by the AIs. They reported that the group interaction allowed them to elaborate on and discuss what they observed in the clinic as well as engage in meaningful interaction with AIs, especially their faculty advisor.

Clinical Instructors

The CIs believed that the students consistently came prepared for the clinic visits. They found that the students were helpful to the clinic in their role as PT aide. Although they did note that students with PT aide experience prior to entering PT school were more helpful than their peers during the first course (Clinical Education I), this difference was not apparent during the second course (Clinical Education II). The CIs did utilize the course manuals and found it helpful for planning the visits. Utilization of the course manual decreased over time, however, as the students became more self-directed with their learning experiences. While not all learning activities were feasible in all clinics (e.g., no patients with which to practice transfers in some settings), all learning objectives could be met in one way or another. Examples of alternative strategies used included role playing and assigning the student to another department within the facility where the activity was more feasible. Subsequently, the CIs believed that all settings could, and should, be used for both courses. The CIs mirrored the students' belief that flexibility should be allowed in the sequence of learning activities.

Academic Instructors

A variety of formats (e.g., length, structure, and method of questioning) were followed by the AIs to conduct the synthesis seminars, yet all believed that the seminars were of high educational value. The AIs reported relatively little use of the course manuals and described the learning activity worksheets as too "checklist" oriented. They would have preferred worksheets containing questions that were more reflective and self-evaluating. They believed that the students were adequately engaged in the seminars and that the level and quality of participation improved as the course progressed. They reported that the student/AI interactions "allowed important mentoring and promoted clinical reasoning skills needed for future discussions with CIs and colleagues." The AIs stated that they had difficulty remaining "neutral" and avoiding criticism when "less than desirable" clinical practice (in their opinion) was reported by students. Despite this difficulty, the AIs believed that they were able to productively facilitate critical thinking when such issues were discussed. AIs also reported confusion and inconsistency regarding the synthesis seminar evaluation process (Appendix 3).

DISCUSSION

Overall, the courses described in this article appeared to be viewed by students, CIs, and AIs as successful in achieving the outcomes desired. Course written evaluations by students and CIs were positive regarding course elements for both courses. CIs, however, appeared more pleased with course elements than students. Of note, students seemed somewhat dissatisfied with the course manual and learning activity worksheets for both courses. This could represent resistance to assuming a more active role in the learning process and should be explored further. We have continued to modify these worksheets for brevity and to clarify the content in the student manual for subsequent course offerings. CIs appeared equally accepting of teaching elements of both courses. This finding is particularly positive as the second course was longer and represented more teaching/supervisory responsibility for the CI. Additionally, the students and AIs suggested using only acute care and neuro-rehabilitation settings for basic skills (Clinical Education I) and only out-patient musculoskeletal settings for musculoskeletal exam (Clinical Education II) the following year. This is feasible in our community with the use of clinics outside of the metropolitan area with slightly increased travel time for some students. The CIs participating in the focus group did not feel that site specific assignments were necessary because all learning activities were feasible, albeit using alternative strategies, in all settings. However, a major objective for using this format was to reduce work for the CI. Therefore, using the most appropriate settings for each course seems wise. The learning activity worksheets were also modified to incorporate more reflective and self-evaluating oriented questions, as recommended by AIs.

Additionally, the Co-ACCEs identified a need to provide more guidance to AIs regarding providing student evaluations with the synthesis seminars. Although not an emergent theme during course evaluation, there have been isolated reports of failure of the site clinic education coordinator to share the resource manual with individual clinical instructors. This has been remedied by coaching the student to share their copy of the manual and to actively participate in the planning of activities with the individual instructor.

Of note were the concerns raised by AIs regarding expressing criticism of clinical sites when "less than ideal" clinical practice appeared to be employed. This issue had been raised by the Co-ACCEs prior to course implementation in fear that "ivory tower" judgments may be shared by students and be viewed as offensive by clinical faculty. Prior discussion of the issue may have raised the AI's awareness of such situations and consequently increased concerns. Regardless, the Co-ACCEs believe that these issues were appropriately managed by AIs in the synthesis seminars. They also believe that such discussions, if managed diplomatically, can provide valuable learning experiences for students especially with regards to developing strategies for meeting learning needs in challenging situations.

The perceived strengths of this model include timely, structured integration of didactic information, relationship development of a mentoring relationship between the AIs and their advisees, and development of student skill needed to maximize clinical learning opportunities. A possible limitation of the model is that students have limited skill sets to draw upon which has been a greater concern from the perspective of the student than the clinical and academic faculty. Also, the first time a CI supervises a student it may take longer to plan the structured learning activity. However, after the first year, CIs appeared to accept the planning as routine, and the benefits of a structured learning environment have been perceived as worth the initial cost by all involved parties. This format for clinical learning appears best suited for urban settings and may not be appropriate for all programs. Schools located in regions lacking multiple, local clinical sites would undoubtedly be better suited to strategies that plan part-time experiences in blocks of a week or more at a time to accommodate travel for out of town placements. Although the learning modules we utilized reflected topics typical of early coursework in many curricula for student physical therapists, they were specifically designed to link our program coursework with clinical experiences. The planned experiences could easily be modified to include topics specifically reflective of early content in other programs, such as documentation skills or wound care.

Future studies related to this model are needed to evaluate the extent to which it prepares students for terminal full time clinical education courses and to determine what effect it has on actual clinical performance during those culminating experiences. Additionally, the impact of this type experience on the workload of CIs and AIs may be specifically addressed in future research.

Summary

This alternative model for part-time concurrent clinical education with decreased demands on staff resources appeared to create part-time experiences that were manageable to clinicians yet meaningful for students. At the same time the academic faculty assumed more responsibility for student learning, providing organized opportunities for consistent learning experiences during synthesis seminars. This model was subsequently used to design challenging learning experiences for the new entry-level doctoral students. This opportunity to take only what is necessary from clinicians while assuming more responsibility for contextualizing learning may apply to other healthcare provider training programs.

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Appendix 1. Clinical Education II: Module – Cultural Competency
Objectives:
Upon completion of the learning experience, the student should be able to:
1. Reflect on personal self-assessment to discuss the implications of their personal *explanatory model on future provision of healthcare.
2. Discuss resources and interviewing techniques for collecting information about a patients socio-cultural status.
3. Utilize a patient's explanatory model of recovery to identify treatment options which are culturally sensitive.

Learning Activities:
1. Discuss cultural diversity with the CI and other clinicians and support personnel as appropriate.
2. Observe the CI and/or others during patient interviews (if new patients are available).
3. Interview a patient (from a different culture if possible) in a culturally sensitive manner.
4. Make suggestions for a treatment plan for a patient which demonstrates recognition of their explanatory model.

Student responsibilities:
1. Review pertinent coursework and complete cultural self-assessment prior to participating in this clinical activity.
2. Be prepared to lead discussion regarding cultural diversity with CI and/or other caregivers.
3. With CI's guidance, identify an appropriate patient to interview.
4. Utilize resources in appropriate manner.
5. Record learning outcomes in accordance with course requirements.
6. Discuss findings with CI.
7. Summarize and report learning experience during meeting with academic faculty.

Clinical Instructor responsibilities:
1. Assist student in identifying appropriate staff for discussion of cultural diversity.
2. Assist student in identifying appropriate patient for this assignment.
3. Supervise student as necessary..
4. Discuss and verify student's findings

Academic Instructor responsibilities:
1. Review guidelines for PT 671 discussions and specific guidelines for the assigned topic.
2. Facilitate discussion in the suggested manner.
3. Submit written summary of students' performance

*explanatory model – Ideas about disability are part of a larger culturally based system of health beliefs and health behaviors. All cultures have shared ideas of what makes people sick, what makes people well and how people can maintain good health through time. These beliefs help people make sense of the world around them. Both lay people and health professionals tend to combine their society's health belief systems with knowledge gained through first hand experience. These individual models of belief are often referred to as explanatory models (Kleinman 1980).

(From Leavitt R L. Cross-cultural Rehabilitation: An International Perspective. W. B. Saunders 1999)

Appendix 2. Clinical Education II: Learning Activity Worksheet - Cultural Competency

Student's name_____

Learning activities:

1. Share your cultural background and discuss the cultural composition of the CI, and staff
    - Are cultures other than Caucasian Euro-American represented within the departmental personnel?
    - If so, please describe the cultural background(s)
    - Does the cultural representation of the staff reflect that of the population served?
    - If diversity exists do they consult each other regarding issues related to cultural explanatory models? Can the therapist you consult with give examples of instances when they had a similar cultural background as a patient – and the shared experience provided significant empathy and direction when conducting a patient history and physical.
    - What resources are available to the staff to facilitate the therapeutic relationship with patients from different cultures? How are the resources accessed?

2. Observe the CI and/or others when interviewing a new patient.
    - What information about the social/cultural dimensions of life concerning the patient was obtained? (i.e. employment status, type of work done in the past, leisure activities, family situation)
    - What resources were used to obtain the information (i.e. chart, staff, friends & family, the patient)?
    - What are the patient's expectations from physical therapy?
    - What information did the patient seem most interested in sharing?
    - What information seemed to have a top priority for the therapist?

3. Interview a patient (from a different culture than yours if possible) in a culturally sensitive manner. Include the following questions and make note of the patient response. Use follow up questions/comments to facilitate sharing (i.e. tell me more, what else, in what ways are you concerned about that…) and also record nonverbal behaviors and or emotional states.

    - What do you think caused your problem?
    - Why do you think it started when it did?
    - What do you think your sickness/injury does to you?
    - How bad is your problem? Will it take a short or long time to get well?
    - What kind of treatment do you think you should receive?
    - What are the most important results you hope to obtain from this treatment?
    - What are the chief problems your sickness has caused you?
    - Do you have any fears about your sickness? If so what?

4. Make suggestions for a treatment plan for a patient, which demonstrates recognition of their explanatory model. Justify your suggestions.

*explanatory model – Ideas about disability are part of a larger culturally based system of health beliefs and health behaviors. All cultures have shared ideas of what makes people sick, what makes people well and how people can maintain good health through time. These beliefs help people make sense of the world around them. Both lay people and health professionals tend to combine their society's health belief systems with knowledge gained through first hand experience. These individual models of belief are often referred to as explanatory models (Kleinman 1980).

(From Leavitt R L. Cross-cultural Rehabilitation: An International Perspective. W. B. Saunders 1999)

Appendix 3. Student Clinical Performance Summary

*Student Performance Criteria	*Appropriate	*Needs Improvement	*Significant Concern
Practices in a safe manner that minimizes risk to patient, self, and others. Examples include: • Observes health and safety regulations. • Maintains safe working environment. • Recognizes physiological and psychological changes in patients and adjusts treatment accordingly. • Requests assistance when necessary. • Uses acceptable techniques for safe handling of patients. • Protects welfare of self, patient, and others in emergency situations.			
2. Presents self in a professional manner. Examples include: • Accepts responsibility for own actions. • Is punctual and dependable. • Completes scheduled assignments in a timely manner. • Wears attire consistent with expectations of the practice setting. • Demonstrates initiative. • Abides by the policies and procedures of the practice setting. • Adapts to change.			
3. Demonstrates professional behavior during interactions with others. Examples include: • Maintains productive working relationships with patients, families, CI, and others. • Treats others with positive regard, dignity, respect, and compassion. • Maintains confidentiality. • Demonstrates behaviors that contribute to a positive work environment. • Accepts criticism without defensiveness. • Manages conflict in constructive ways. Makes choices after considering the consequences to self and others. • Assumes responsibility for choices made in situations presenting legal or ethical dilemmas. • Maintains patient privacy and modesty (e.g., draping, confidentiality).			
4. Adheres to ethical practice standards. Examples include: • Abides by relevant ethical codes and standards of practice guidelines. • Adheres to institutional policy and procedures. • Identifies situations in which ethical questions are present. • Reports violations of ethical practice.			
• Adheres to legal practice standards. Examples include: • Abides by pertinent state (province) and federal laws and regulation, including those applying to state licensure laws. • Identifies situations in which legal questions are present. • Reports violations of laws governing practice of physical therapy.			

COMMENTS:

Appendix 4. Student Seminar Evaluation

Student_____ Academic Instructor_____

Key:
Never	Rarely	Sometimes	Frequently	Always
0	5	6	7	8

MODULE NUMBER	1 & 2	3 & 4	5 & 6	7 & 8	9 & 10	11 & 12	13 & 14
1. Ability to verbally summarize their individual learning experiences • *Communicates in a clear, concise manner* • *Provides specific examples to support summary statements regarding the experience*							
2. **Ability to contribute to the group process** • *Acknowledges the uniqueness of each clinical setting and circumstances to the outcome of the learning experience in a respectful manner* • *Initiates and facilitates discussion* • *Sensitive to group needs/Able to adapt personal goals*							
3. Ability to evaluate others using constructive feedback • *Able to compare and contrast their experiences to those of classmates in a meaningful and positive manner* • *Gives suggestions for behavior change*							
4. Evaluates self • *Identifies own strengths and limitations* • *Identifies ways of correcting limitations* • *Accepts responsibility of their own clinical learning experience* • *Ability to receive constructive criticism and articulates a plan for behavior changes in themselves to improve opportunities*							
5. Ability to synthesize clinical experience with relevant classroom studies • *Able to relate specific clinical experiences to didactic studies* • *Justifies interpretation of experiences in an accurate and critical manner*							
Participation Grade (Subtotal ÷ 5)							
6. Completes and submits worksheet (1 point / each module) • *Turn assignment in fully completed (0.5 each module)* • *Turn assignment in on time (0.5 each module)*							
Total							

Appendix 5. Student Focus Group Survey

Briefly describe the settings you were assigned to for Clinical Education I & Clinical Education II.

How did you use the manual to prepare for/participate in the learning activities?

Describe the role of the worksheets in your learning experience.

How closely were the learning objectives (as stated in the manual) met?

What was the educational value of the clinical activities?

What was the educational value of the synthesis seminars?

What else would you like to share?

Appendix 6. Clinical Faculty Focus Group Survey

What is your practice setting (OP, Acute Care, Neuro-rehab, Other)?

How did you use the manual to prepare for/conduct the activities?

Describe the student's level of preparation for the learning activities.

How closely were the learning objectives met?

Describe the educational value of all the clinical activities?

Describe the impact of the student's presence in the clinic's operations.

What else would you like to share?

Appendix 7. Academic Faculty Focus Group Survey

Briefly describe the typical format of your synthesis seminars (length, structure, method of questioning, etc.)

How did you use the manual to prepare for/conduct the sessions?

Describe the student's level of engagement in the seminar.

What was the educational value of the synthesis seminar?

What else would you like to share?