COURSE SYLLABUS
Spring Semester 2005
(Revised as of 10-29-04)

COURSE TITLE:  CMSI 312 Interdisciplinary Seminar in Neurodevelopmental Disabilities

COURSE DESCRIPTION:

CMSI 312 is part two of an advanced graduate level seminar sequence offered through the Vermont’s Interdisciplinary Leadership Education for Health Professionals (VT-ILEHP) Program, which is required for all VT-ILEHP long-term trainees and fellows. It is a Spring Semester graduate course cross-listed in several departments and offered through Continuing Education for three graduate credits. The five competency areas emphasized throughout the VT-ILEHP core curriculum guide the specific content: neurodevelopmental and related disabilities; interdisciplinary process and collaborative teaming; cultural competence; family-centered care; and leadership in Maternal and Child Health. The VT-ILEHP faculty has actively and collaboratively developed the scope and sequence of the course content. This course is offered to community health professionals and related service providers, as well as students and faculty not directly involved in the VT-ILEHP Program. As an advanced course in interdisciplinary research and practice, this would not be a course typically taken by undergraduate students. Students who do not have graduate status are required to get the instructor’s permission to take this course.

COURSE COORDINATORS: Patricia A. Prelock, Ph.D., CCC-SLP
Training Director
VT-ILEHP Program

Jean Beatson, Ed. D., RN
Clinical Director & Associate Training Director
VT-ILEHP Program

COURSE INSTRUCTORS: Core and Affiliated Faculty of the VT-ILEHP Program with recognized expertise in particular content areas.

CORE FACULTY

Nancy Abernathey (Family Support)
Jean Beatson (Nursing; Clinical Director, Associate Training Director)
Sara Burchard (Psychology)
Stephen Contompasis (Pediatrics; Program Director)
Ruth Dennis (Occupational Therapy)
Martha Dewees (Social Work)
Priscilla Douglas (Audiology)
Mary Alice Favro (Speech Pathology)
Dorigen Keeney (Nutrition)
Deborah O'Rourke (Physical Therapy)
Patricia Prelock (Speech Pathology; Training Director)
Peggy Sands (Physical Therapy)

OTHER PARTICIPATING FACULTY & GUEST PRESENTERS

Noma Anderson (Dean, Allied Health Sciences, Florida International University)
Chigee Cloninger (Executive Director, CDCI)
Phillip Cooper (Public Administration, Portland State University)
Susan Edelman (CDCI)
Michael Ferguson (Consultant, State Department of Education)
Blanche Podaski (Stern Center)
Betty Rambur (Dean, College of Nursing & Health Sciences)
Orlando Taylor (Dean, Graduate College, Howard University)
Claudia Vargas (Education; Portland, Oregon)
David Yandell (Vermont Center for Cancer Research)

COURSE DAY & TIME: Thursdays, 5:00-8:00 pm

LOCATION: 304 Pomeroy Hall

VT-ILEHP OFFICE: Farrell Hall, UVM Trinity Campus
210 Colchester Avenue
656-4291 (Jean Beatson, Clinical Dir. & Associate Training Dir.)
jean.beatson@uvm.edu
656-1915/2529 (Patricia A. Prelock, Training Director)
patricia.prelock@uvm.edu
656-3187 (Steven Contompasis, Program Director)
stephen.contompasis@uvm.edu
656-0204 (Kerstin Hanson, Program Assistant)
kerstin.hanson@uvm.edu

OFFICE HOURS: Please call or e-mail for an appointment.

VT-ILEHP MISSION STATEMENT:

The mission of the Vermont Interdisciplinary Leadership Education for Health Professionals (VT-ILEHP) Program is to improve the health of infants, children, and adolescents, with or at risk for, neurodevelopmental and related disabilities and their families through the development of culturally competent, family-centered, community-based leadership professionals.

VALUES WHICH FORM THE FOUNDATION FOR THE VT-ILEHP PROGRAM:

*We believe that all individuals have a right to health. Systems that promote health should provide for universal access and accessibility,*
personal and family choice and promotion of independence within the community.

We believe that the family provides the foundation for the health of our children and that programs supporting the health of children need to support the health of the family and provide services that are family-centered and family oriented.

We believe that all supports should be integrated within the community and that individuals and families needing supports should exercise control over funding, delivery and quality of supports.

We believe in a strength’s approach to assessment and support rather than a problems approach.

We believe in prevention and health promotion in order to manage crisis intervention.

We encourage diversity throughout our community, in our classrooms, play, neighborhoods, marketplaces, and workplaces.

We believe that communities should be fully accessible for every citizen.

GENERAL COURSE OBJECTIVES:

1. To increase the knowledge of VT-ILEHP trainees/fellows, faculty, graduate students and community professionals of primary, secondary and tertiary aspects of prevention and health promotion for children with special health needs and their families. (ASHA Standard III-D; VT Standard 1: Learning, Principles #1)

2. To increase the knowledge of VT-ILEHP trainees/fellows, faculty, graduate students and community professionals of various models of interprofessional collaboration and teaming and service provision in the health care of children with special health needs and their families. (ASHA Standard IV-G, #3; VT Standard 3: Colleagueship, Principle #10; VT Standard 4: Advocacy, Principle 11)

3. To increase understanding and skill in developing partnerships with families, and learn how families and professionals can work collaboratively in providing family-centered, high quality integrated services. (ASHA Standard IV-G, #3; VT Standard 3: Colleagueship, Principle #10; VT Standard 4: Advocacy, Principle #11)

4. To increase the cultural sensitivity and competence level of VT-ILEHP trainees/fellows, faculty, graduate students and community professionals in their interactions with families and their children with special health needs including disability, age, gender, religion and culture. (ASHA Standards III-D & IV-F; VT Standard 2: Professional Knowledge, Principles #2 & 3)
5. To increase the knowledge and skill of VT-ILEHP trainees/fellows and interested graduate students and community professionals in methods of information acquisition, public policy problem identification, and research in Maternal and Child Health. (ASHA Standard III-F)

6. To critically analyze and evaluate cutting edge issues (e.g., managed care, informed consent, confidentiality, new technologies, etc.) that are currently impacting the lives of children and families. (ASHA Standards III-E, F, G, H; VT Standard 2: Professional Knowledge, Principle #9; VT Standard 4: Advocacy, Principles #12 & 13)

SPECIFIC COURSE OBJECTIVES:

Specific course objectives have been defined for each seminar topic. These objectives and the learning activities designed to meet these objectives will be provided to each student the evening of the individual seminars by the interdisciplinary team responsible for the seminar’s planning.

COURSE READINGS: Course packs are available through the University Bookstore for the Fall Semester. A course pack will be made for the required readings. Students are required to purchase a course pack with the required readings. Seminar teams responsible for facilitating discussion around each topic listed in the course outline will provide any additional required readings two weeks in advance of discussion on the topic. These loaned copies of additional readings, if any, should be returned to the course coordinator within two weeks following the seminar.

REQUIRED TEXT:


COURSE REQUIREMENTS:

1. **Attendance and Participation in Class Discussions.** Students are expected to attend all classes and actively participate in class discussions. Required readings can be found in the course packs. Any additional required readings will be announced and provided two weeks prior to each class. Students are expected to come prepared to class and ready to relate the assigned readings and any questions posed by the presenters to the topic of discussion for that class session.

2. **Article Review.** Students are required to reflect, in writing, on the required readings for one of the topics presented during the semester. This means that
students are to read all the required readings provided by the seminar team for a particular topic and integrate the information from these readings to address the following:

a. Compare and contrast the theoretical or conceptual frameworks espoused in each article? (5 pts.)
b. Have any of the theoretical or conceptual frameworks presented in the articles led to evidence-based practice as described within the article or within your own discipline? Please explain. (5 pts.)
c. What are the implications for interdisciplinary practice with children with neurodevelopmental disabilities and their families based on the articles you read? (5 pts.)

Students may choose any topic areas they wish to use for their article review. The review is due the evening following the presentation of the topic and is worth 15 points.

3. Evidence-Based Practice Critique. Students are required to select one research article from the readings listed in the course syllabus or in their discipline specific area that focuses on evidence-based practice. Students are to determine through a comprehensive critique of the research presented in the article if, in fact, the findings would be considered valid. Students may select a quantitative or qualitative research article to review. Students choosing to review a quantitative research article are asked to answer these questions:

a. What type of evidence has been identified? (e.g., randomized clinical trial, single subject, prospective nonrandomized group design with controls, case studies, etc.) (2 pts.)
b. Were participants randomly assigned to groups? (2 pts.)
c. Was group membership concealed from subjects, clinicians, evaluators? (2 pts.)
d. Were groups similar prior to intervention? (2 pts.)
e. Was membership in groups maintained throughout the investigation? (2 pts.)
f. Based on this information, what is your understanding of the validity of the research? Please explain (10 pts.)

Students are also encouraged to complete the PEDro scale (see attached) and review the resources for examining evidenced-based practice research.

Students choosing to review a qualitative research article are asked to address Evidence in the areas below:

a. feasibility=>how practical the research is & the level of training &/or resources required (5 pts.)
b. appropriateness=>what is the level of acceptability & how justifiable the research is in consideration of ethical guidelines (5 pts.)
c. meaningfulness=>how does the research lead to advocating change, local, regional & national reform and/or practice development (5 pts.)

  d. effectiveness=>what process is used to determine the validity of the research and are there contradictory findings (5 pts.)

NOTE: If you use an article that is not in the syllabus, but from your discipline, please attach the article to your critique.

Other resources for investigating evidenced-based practice can be found on the web as presented below:

http://www.fhs.mcmaster.ca/rehab/ebp/

Quantitative review form - quanreview.pdf
Quantitative review guidelines - quanguidelines.pdf
Qualitative review form - qualreview.pdf
Qualitative review guidelines - qualguidelines.pdf

Activity-based Interventions Systematic Review - activity.pdf

University of Alberta
Evidence-Based Medicine Tool Kit
www.med.ualberta.ca/ebm.ebm.htm

This assignment is worth a total of 20 points and is due on March 3.

4. Cultural Competence Assignment. Students are required to select one case study from the ‘Special Needs, Special Challenges: Serving Refugee Families’ class (February 17, 2005). As you reflect on the case study selected, you should describe your likely professional role as a member of an interdisciplinary team responding to the case study, including identifying the cultural influences you have experienced that are likely to influence your approach to working with the team on the case study (5 points). (See Vargas et al., (Chapter 3) in the Vargas & Prelock, 2004, text). You should then write a plan for adapting your professional practice to address the following areas:

- Assessment (5 points)
- Use of cultural interpreters (5 points)
- Cultural and linguistic needs of the family (5 points)
- Special needs in working with refugee families and survivors of torture (5 points)
- Intervention including integration of traditional and non-traditional health practices (5 points)

This assignment is worth a total of 30 points and is due on March 24, 2005.

5. Applied Assignment: Students are expected to identify and respond to a policy issue (e.g., availability of the Medicaid waiver for children with special health needs, requirement of standardized measures to document deficits in academic performance for children with special
health needs, training requirements for Personal Care Attendants, Respite workers or Instructional Assistants, availability of cultural interpreters for children with disabilities and their families with limited English proficiency, etc.) that has been raised in class discussions regarding services for children with special health needs and their families, that has been raised in your readings or is a current issue in your community setting. You will be asked to provide the following in your written response:

a. What is the policy issue affecting services for children with special health needs and their families? (5 points)
b. What is the impact of the policy on accessibility and/or quality of services? (5 points)
c. What are the barriers to service delivery that stem from the policy? (10 points)
d. What changes might be recommended? (10 points)
e. Who needs to be involved in the recommended changes? (5 points)

This assignment is worth a total of 35 points and is due on April 28, 2005.

NOTE: Any student in this course who has a disability that may prevent him/her from fully demonstrating his/her abilities should contact the course coordinator as soon as possible so we can discuss accommodations necessary to ensure full participation and facilitate your educational opportunity.

EVALUATION:

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Article Review</td>
<td>15</td>
</tr>
<tr>
<td>Evidence-Base Practice Critique</td>
<td>20</td>
</tr>
<tr>
<td>Culture Assignment</td>
<td>30</td>
</tr>
<tr>
<td>Policy Assignment</td>
<td>35</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td>100</td>
</tr>
</tbody>
</table>

Graduate Students

<table>
<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 - 99 points</td>
<td>A+</td>
</tr>
<tr>
<td>98 - 94 points</td>
<td>A</td>
</tr>
<tr>
<td>93 - 90 points</td>
<td>A-</td>
</tr>
<tr>
<td>89 - 87 points</td>
<td>B+</td>
</tr>
<tr>
<td>86 - 84 points</td>
<td>B</td>
</tr>
<tr>
<td>83 - 80 points</td>
<td>B-</td>
</tr>
<tr>
<td>79 - 75 points</td>
<td>C</td>
</tr>
<tr>
<td>below 75 points</td>
<td>F</td>
</tr>
</tbody>
</table>
JANUARY 20

Understanding Attention Deficit Hyperactivity Disorder: Assessment & Intervention
Review of Course Syllabus & Requirements

FACULTY COORDINATORS:  Stephen Contompasis
                           Patty Prelock
                           Jim Calhoun

Required Readings


For additional resource information, you can click onto the following websites to review the material:
http://www.aap.org/policy/s0120.html
http://www.aap.org/policy/ac0002.html
http://odp.od.nih.gov/consensus/cons/110/110_intro.htm

JANUARY 27

Language Learning Disabilities: Differential Diagnosis

FACULTY COORDINATOR:  Patty Prelock
GUEST COORDINATOR:  Blanche Podaski

Required Readings

FEBRUARY 3

Hearing Loss & Deafness: Health Care Issues & Cultural Competence

FACULTY COORDINATOR: Priscilla Douglas

Required Readings

First, view video “Sound and Fury” – available at Bailey Howe (VT-ILEHP has DVD). We will discuss in class.


Student may also wish to explore resources on-line: (http://)

www.signmedia.com/info/adc.htm. American Deaf Culture: Perspectives on Deaf People
www.ocd.state.or.us/tadoc/deaf7.htm. Deaf Culture: Culture, History, and Importance
www.nad.org/index.html. National Association of the Deaf website. Explore website. In Site Directory, go to Information Center – Information to Go – Deaf Culture and Community – “What is the Difference Between a Deaf and Hard of Hearing Person?” and “What is Wrong with the Use of These Terms…”

Go back to Index – Products – Sharing Ideas: “A First Language: Whose Choice Is It?” (read Intro and “A Win-Win Situation”) and “Creating a Multicultural School Climate for Deaf Children and Their Families”
Go back to Index – Products – Sharing Results: “We Are Equal Partners: Recommended Practices for Involving Families in Their Child’s Educational Program: Section II: Recommended Practices for Family Involvement.”

www.asha.org/about/membership-certification/divs/div_14.htm
Scroll down, click on “To View An Issue”, go to Page 4: “Audiology in the 21st Century”


Click on Advocacy: Angie King: The Right to Hear
FEBRUARY 10

Health Care Financing & Impact on Children with Special Health Care Needs

FACULTY COORDINATORS: Steve Contompasis
GUEST FACULTY: Betty Rambur

Required Readings


FEBRUARY 17

Special Needs, Special Challenges: Serving Refugee Families

FACULTY COORDINATORS: Claudia Vargas
Phil Cooper

Required Readings


FEBRUARY 24

Communication with Children about Health Conditions

FACULTY COORDINATOR: Deb O’Rourke
Marty Dewees
Nancy Abernathey

Required Readings


MARCH 3

The Right to Grow: Nutritional Factors Impacting Growth and Development

FACULTY COORDINATORS: Dorigen Keeney
Steve Contompasis

Required Readings


MARCH 10

Mental Health Issues for Individuals with Special Needs

FACULTY COORDINATOR: Sara Burchard
Marty Dewees

Required Readings


MARCH 17

Traumatic Brain Injury

FACULTY COORDINATOR: Mary Alice Favro
GUEST FACULTY: Michael Ferguson

Required Readings


Additional Resource:
**MARCH 24**  
SPRING BREAK

**MARCH 31**

*Deaf-Blindness*

**FACULTY COORDINATOR:** Priscilla Douglas  
**GUEST FACULTY:** Chigee Cloninger, Susan Edelman

**Required Readings**


**APRIL 7**

*From Policy to Practice: Issues of Leadership*

**FACULTY COORDINATORS:** Marty Dewees, Nancy Abernathey  
**GUEST FACULTY:** Ann Pugh, Kay Van Woert

**Required Readings**


**APRIL 14**

**Leadership Challenges as Culturally Competent Interdisciplinary Professionals**

**FACULTY COORDINATOR:** Patty Prelock  
**GUEST FACULTY:** Orlando Taylor, Noma Anderson

**Required Readings**


**APRIL 21**

**Oral Health Issues for Children with Special Health Needs**

**FACULTY COORDINATOR:** Steve Contompasis

**Required Readings**
All can be obtained electronically:

Bonito, AJ, Executive Summary: Dental Care Considerations for Vulnerable Populations. *Special Care Dentist* 22(3): 5s-10s (note pages 5s-10s only)
Found at: [http://www.scdonline.org/Files2002-03/DentalCareConsiderationsSpecialCarePopulations.pdf](http://www.scdonline.org/Files2002-03/DentalCareConsiderationsSpecialCarePopulations.pdf)


The Oral Health and Chronic Disease Connection, May 2002
The Association of State and Territorial Health Officials
found at: [http://www.astho.org/docs/access/ohcd.htm](http://www.astho.org/docs/access/ohcd.htm)

**APRIL 28**

*Transition to Adult Services*

**FACULTY COORDINATOR:** Sara Burchard

**Required Readings**


**MAY 5**

*Ethics & Issues in Genetics*
FACULTY COORDINATOR: Jean Beatson
GUEST FACULTY: David Yandell
Leah Burke

Required Readings


POLICY ON ACADEMIC HONESTY (For a complete description of the university policy please see the *The Cat’s Tale* student handbook.)

“Offenses against academic honesty are any acts which would have the effect of unfairly promoting or enhancing one’s academic standing within the entire community of learners which includes, but is not limited to, the faculty and students of The University of Vermont. Academic honesty also includes knowingly permitting or assisting any person in the commission of an offense of academic honesty. The following is a list of some, but not all, offenses of academic honesty accommodated by the above definition:”

1. Plagiarism=> “offering as one’s own work the words of another”
2. Acquiring material from another person or organization and submitting it as your own without attributing it to the originator of the work.
3. Communicating during exams or collaborating in the preparation of assignments without the instructor’s permission.
4. Using crib sheets, notes, etc. during an examination except when permitted by the instructor.
5. Soliciting or providing to another copies or portions of exams prior to the administration of the exam without the instructor’s authorization.
6. Representing oneself as another during an exam or assignment.
7. Changing an exam or assignment to mislead another.
8. Forging academic records.
9. Presenting false information at an academic proceeding or intentionally destroying evidence.
10. Delaying return of or destroying library materials which infringes on equal access to all students of academic resources.
11. Preventing others access to the UVM computer system and/or destroying or copying files without consent.
12. Presenting the same material for more than one course without the permission of the instructor.
13. Falsifying data in research or presenting false information in documents submitted for publication.

The above items were modified from the student handbook. Please review the complete information on academic honesty in *The Cat’s Tale*.

*As part of the Unit Faculty for the University of Vermont that prepares speech-language pathologist, teachers, and counselors as educators in school settings, the following conceptual framework is shared across educators at UVM to ensure quality learning and teaching:*

**Conceptual Framework**

*“The heart and mind of programs”*

Unit faculty at the University of Vermont aspire to prepare a committed reflective practitioner, instructional leader and change agent, collaborating with other professionals to make a positive difference in schools and in the lives of all learners.

*Through Reflective learning and practice, the UVM prepared educator is grounded in . . .*

**Constructivism**

Knowledge is socially constructed through dialogue and community-based practice (constructivism).

**Collaboration**

Teachers and other school professionals work collaboratively to problem-solve with stakeholders (collaboration, inter-professional practice, reflective practice, excellence).

**Human development & empowerment**

Education facilitates development of human potential (developmentally appropriate practice, strengths perspective, empowerment).

**Inclusion**

All students can learn and have value in their communities (inclusion).

**Multiculturalism/culturally responsible pedagogy**

Learning communities demonstrate respect for and honor diversity; pursue knowledge and affirmation of our diverse cultures (multiculturalism, culturally responsive pedagogy, equity).
Equity & justice
Education should advance social justice and democracy (equity).

. . . and meets these standards - KSD Standards for Beginning Teachers and Others School Professionals in Initial Programs

- Demonstrates content knowledge and skills
- Understands learners and differences
- Understands learning
- Translates curriculum into instruction
- Creates equitable, inclusive learning environments
-Assesses student learning
- Practices culturally responsive pedagogy
- Demonstrates collaborative and interpersonal skills
- Engages in reflective practice
- Integrates technology
- Acts consistently with the belief that all students can learn
- Engages in self-directed learning and professional development for growth
Faculty beliefs have shaped their professional commitments that are expressed in Outcome Statements for Candidates.

The professional educator in initial preparation programs at The University of Vermont . . .

1. Knows content/subject matter, understands connectedness with other disciplines, and translates curriculum into materials and instructional strategies appropriate for subject matter and learners. (Critical Thinker)

2. Understands all learners as individuals, in the context of families and social groups, and uses standard’s based instruction to create equitable safe and supportive learning environments that promote acceptance and belonging. (Problem Solver)

3. Understands learning and ways of evaluating and enhancing it, including through the application of technology. (Instructional Leader)

4. Knows social, cultural, historical, legal and philosophical context of schools in a democracy and practices equitable and culturally responsive pedagogy appropriate for subject matter and learners. (Reflective Practitioner)

5. Can create inclusive learning environments which meet diverse learning needs, incorporate and reflect all learners’ experiences, and facilitate students’ learning, including about their own biases and understandings. (Reflective Practitioner/Change Agent)

6. Demonstrates effective collaborative and interpersonal skills in problem-solving with students, families, colleagues and related professionals. (Interprofessional Practitioner)

7. Engages in professional development and continually examines own assumptions, beliefs and values. (Reflective Practitioner)

8. Demonstrates the belief that all students can learn and that they can take responsibility for their own learning; demonstrates high expectations for all students and takes responsibility for helping them aspire to high levels of learning. (Student Advocate)
Evidence-Based Practice Resources

Centre for Evidence-Based Physiotherapy

Centre for Health Evidence (CHE)
http://www.cche.net/che/home.asp

Centre for Evidence-based Medicine
http://www.cebm.utoronto.ca/

Evidence Based Medicine Toolkit
http://www.med.ualberta.ca/ebm/ebm.htm

The Good, the Bad & the Ugly: or, why it’s a good idea to evaluate Web sources
http://lib.nmsu.edu/instruction/eval.html

OT seeker http://www.otseeker.com/

The PEDro Scale is taken from the Frequently Asked Questions section and can be accessed at: http://www.pedro.fhs.usyd.edu.au/FAQs/faqs.htm

PEDro Scale

1. eligibility criteria were specified
   no □ yes □ where:

2. subjects were randomly allocated to groups (in a crossover study, subjects were randomly allocated an order in which treatments were received)
   no □ yes □ where:

3. allocation was concealed
   no □ yes □ where:

4. the groups were similar at baseline regarding the most important prognostic indicators
   no □ yes □ where:

5. there was blinding of all subjects
   no □ yes □ where:

6. there was blinding of all therapists who administered the therapy
   no □ yes □ where:

7. there was blinding of all assessors who measured at least one key outcome
   no □ yes □ where:

8. measures of at least one key outcome were obtained from more than 85% of the subjects initially allocated to groups
   no □ yes □ where:

9. all subjects for whom outcome measures were available received the treatment or control condition as allocated or, where this was not the case, data for at least one key outcome was analyzed by “intention to treat”
   no □ yes □ where:

10. the results of between-group statistical comparisons are reported for at least one key outcome
    no □ yes □ where:

11. the study provides both point measures and measures of variability for at least one key outcome
    no □ yes □ where:
The PEDro scale is based on the Delphi list developed by Verhagen and colleagues at the
Department of Epidemiology, University of Maastricht (Verhagen AP et al (1998). The
Delphi list: a criteria list for quality assessment of randomised clinical trials for
conducting systematic reviews developed by Delphi consensus. Journal of Clinical
Epidemiology, 51(12):1235-41). The list is based on "expert consensus" not, for the most
part, on empirical data. Two additional items not on the Delphi list (PEDro scale items 8
and 10) have been included in the PEDro scale. As more empirical data comes to hand it
may become possible to "weight" scale items so that the PEDro score reflects the
importance of individual scale items.

The purpose of the PEDro scale is to help the users of the PEDro database rapidly
identify which of the known or suspected randomized clinical trials (ie RCTs or CCTs)
archived on the PEDro database are likely to be internally valid (criteria 2-9), and could
have sufficient statistical information to make their results interpretable (criteria 10-11).
An additional criterion (criterion 1) that relates to the external validity (or
“generalisability” or “applicability” of the trial) has been retained so that the Delphi list is
complete, but this criterion will not be used to calculate the PEDro score reported on the
PEDro web site.

The PEDro scale should not be used as a measure of the “validity” of a study’s
conclusions. In particular, we caution users of the PEDro scale that studies which show
significant treatment effects and which score highly on the PEDro scale do not
necessarily provide evidence that the treatment is clinically useful. Additional
considerations include whether the treatment effect was big enough to be clinically
worthwhile, whether the positive effects of the treatment outweigh its negative effects,
and the cost-effectiveness of the treatment. The scale should not be used to compare the
"quality" of trials performed in different areas of therapy, primarily because it is not
possible to satisfy all scale items in some areas of physiotherapy practice.

Notes on administration of the PEDro scale:

All criteria  **Points are only awarded when a criterion is clearly satisfied.** If on a
literal reading of the trial report it is possible that a criterion was not
satisfied, a point should not be awarded for that criterion.

Criterion 1 This criterion is satisfied if the report describes the source of subjects and
a list of criteria used to determine who was eligible to participate in the
study.

Criterion 2 A study is considered to have used random allocation if the report states
that allocation was random. The precise method of randomization need not
be specified. Procedures such as coin-tossing and dice-rolling should be
considered random. Quasi-randomization allocation procedures such as
allocation by hospital record number or birth date, or alternation, do not
satisfy this criterion.

Criterion 3  **Concealed allocation** means that the person who determined if a subject
was eligible for inclusion in the trial was unaware, when this decision was
made, of which group the subject would be allocated to. A point is
awarded for this criteria, even if it is not stated that allocation was
concealed, when the report states that allocation was by sealed opaque
envelopes or that allocation involved contacting the holder of the
allocation schedule who was “off-site”.

Criterion 4 At a minimum, in studies of therapeutic interventions, the report must
describe at least one measure of the severity of the condition being treated
and at least one (different) key outcome measure at baseline. The rater must be satisfied that the groups’ outcomes would not be expected to differ, on the basis of baseline differences in prognostic variables alone, by a clinically significant amount. This criterion is satisfied even if only baseline data of study completers are presented.

Criteria 4, 7-11 *Key outcomes* are those outcomes which provide the primary measure of the effectiveness (or lack of effectiveness) of the therapy. In most studies, more than one variable is used as an outcome measure.

Criterion 5-7 *Blinding* means the person in question (subject, therapist or assessor) did not know which group the subject had been allocated to. In addition, subjects and therapists are only considered to be “blind” if it could be expected that they would have been unable to distinguish between the treatments applied to different groups. In trials in which key outcomes are self-reported (eg, visual analogue scale, pain diary), the assessor is considered to be blind if the subject was blind.

Criterion 8 This criterion is only satisfied if the report explicitly states both the number of subjects initially allocated to groups and the number of subjects from whom key outcome measures were obtained. In trials in which outcomes are measured at several points in time, a key outcome must have been measured in more than 85% of subjects at one of those points in time.

Criterion 9 An *intention to treat* analysis means that, where subjects did not receive treatment (or the control condition) as allocated, and where measures of outcomes were available, the analysis was performed as if subjects received the treatment (or control condition) they were allocated to. This criterion is satisfied, even if there is no mention of analysis by intention to treat, if the report explicitly states that all subjects received treatment or control conditions as allocated.

Criterion 10 A *between-group* statistical comparison involves statistical comparison of one group with another. Depending on the design of the study, this may involve comparison of two or more treatments, or comparison of treatment with a control condition. The analysis may be a simple comparison of outcomes measured after the treatment was administered, or a comparison of the change in one group with the change in another (when a factorial analysis of variance has been used to analyze the data, the latter is often reported as a group × time interaction). The comparison may be in the form hypothesis testing (which provides a “p” value, describing the probability that the groups differed only by chance) or in the form of an estimate (for example, the mean or median difference, or a difference in proportions, or number needed to treat, or a relative risk or hazard ratio) and its confidence interval.

Criterion 11 A *point measure* is a measure of the size of the treatment effect. The treatment effect may be described as a difference in group outcomes, or as the outcome in (each of) all groups. *Measures of variability* include standard deviations, standard errors, confidence intervals, interquartile ranges (or other quantile ranges), and ranges. Point measures and/or measures of variability may be provided graphically (for example, SDs may be given as error bars in a Figure) as long as it is clear what is being graphed (for example, as long as it is clear whether error bars represent SDs or SEs). Where outcomes are categorical, this criterion is considered to have been met if the number of subjects in each category is given for each group.