APPENDIX B

Human Subjects Review

HUMAN SUBJECTS REVIEW

Introduction

Many of you will be undertaking research studies involving the use of human subjects. This entails several requirements of you as a researcher:

To become familiar with institutional policies regarding research involving human subjects. See the following link: http://www.gvsu.edu/hrrc

1. Any research project conducted by GVSU students or faculty is required to be reviewed and approved by the Human Research and Review Committee (HRRC) at GVSU. HRRC approval is required prior to any subject recruitment or data collection.

2. All researchers (students and mentoring faculty) must demonstrate competency in the CITI (Course in the Protection of Human Research Subjects – www.citiprogram.org/members/courseandexam.) More details will be given in PT 610. Written documentation of competency for all researchers involved in the project is required for new protocol submissions.

3. Access and submit all the required forms and documentation regarding the research project from the HRRC website, listed in number 1 above. Students are ***strongly advised*** to use this website on an on-going basis to access the most recent forms and explanations regarding project submission for approval; such use will minimize delays and better ensure efficiency and timeliness in the approval process.

4. All IRB applications are completed online using IRBNet (www.irbnet.org). Please note that you must be registered to complete applications and load documents, and, the faculty mentor must be registered to approve the HSIRB application prior to final submission. All IRBNet forms and documents can be found on the HRRC website: (http://www.gvsu.edu/hrrc)

NOTE:
GVSU HRRC approval has already been granted for case reports. Please follow the guidelines for completion of forms for case report option in Appendix H to meet HRRC requirements for informed consent process.

For systematic review options, HRRC human subject review and approval process is not required.

HUMAN RESEARCH REVIEW

MANDATE OF THE COMMITTEE

A. Nuremberg Code[8]

1. The voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent; should be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, overreaching, or other ulterior form of constraint or coercion: and should have sufficient knowledge and comprehension of the elements of the subject matter involved as to enable him to make an understanding and enlightened decision. This latter element requires that before the acceptance of an affirmative decision by the experimental subject there should be made known to him the mature, duration, and purpose of the experiment; the method and means by which it is to be conducted; the method hazards reasonably to be expected; and the effects upon his health or person which may possibly come from his participation in the experiment

   The duty and the responsibility for ascertaining the quality of the consent rests upon each individual who initiates, directs or engages in the experiment. It is a personal duty and responsibility which may not be delegated to another with impunity.

2. The research project must be good science and benefit either the subject or the general health and wellness of society.

3. The experiment should be so designed and based on the results of animal experimentation and a knowledge of the natural history of the disease or other problem under study that the anticipated results will justify the performance of the experiment.

4. The experiment should be so conducted as to avoid all unnecessary physical and mental suffering and injury.

5. No experiment should be so conducted where in an a priori reason to believe that death or disabling injury will occur; except, perhaps, in those experiments where the experimental physicians also serve as subjects.

6. The degree of risk to be taken should never exceed that determined by the humanitarian importance of the problem to be solved be the experiment.

7. Proper preparation should be made and adequate facilities provided to protect the experimental subject against even remote possibilities of injury, disability, or death.

8. The experiment should be conducted only by scientifically qualified persons. The highest degree of skill and care should be required through all stages of the experiment of those who conduct or engage in the experiment.

9. During the course of the experiment the human subject should be at liberty to withdraw at any time without penalty, unless withdrawal would pose a risk to subjects.

10. During the course of the experiment the scientist in charge must be prepared to terminate the experiment at any stage, if he has probable cause to believe, in the exercise of the good faith, superior skill and careful judgment required of him that a continuation of the experiment is likely to result in injury, disability, or death to the experimental subject.

[8]Trials of war criminals before the Nuremberg Military Tribunals under Control Council No. 10, The medical Case 181 (U.S. Government Printing Office, 1949)

APPLICATION CATEGORIES FOR HUMAN SUBJECTS REVIEW

There are three categories – exempt, expedited, and full board – for review of research projects by the HRRC. Explanations and criteria necessary to meet each level can be found on the HRRC website, http://www.gvsu.edu/hrrc

1. Projects meeting criteria for exempt review are reviewed for approval by the Chair, HRRC on an on-going basis.
2. Projects meeting criteria for expedited review are reviewed by the Chair, plus 2 members of the Committee, on an on-going basis.
3. Projects requiring Full Board Review are reviewed by the entire membership of HRRC at a convened meeting (once a month). Projects requiring review in this category must arrive before the deadline for that meeting's agenda and HRRC may elect to review required changes to a project submission at subsequent monthly meetings.{Refer to HRRC website for monthly meeting dates and submission deadlines}
4. The federal government definitions and explanations of criteria for all review levels can be found on the HRRC website

EXEMPT CATEGORY CRITERIA

(These proposals still must be submitted to and approved by the Human Research Review Committee)

(a) Except as provided in paragraph (b) below, this subpart applies to all research involving human subjects conducted by Department of Health and Human Services or funded in whole or in part by a Department grant, contract, cooperative agreement or fellowship…

(b) Research activities in which the only involvement of human subjects will be in one or more of the following categories are exempt from these regulations unless the research is covered by other subparts of this part:

(1) Research conducted in established or commonly accepted educational settings, involving normal educational practices, such as (i) research on regular and special education instructional strategies, or (ii) research on the effectiveness of or the comparison among instructional techniques, curricula, or classroom management methods.

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), if information taken from these sources is recorded in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

(3) Research involving survey or interview procedures, except where all of the following conditions exists; (i) responses are recorded in such a manner that the human subjects can be identified, directly through identifiers linked to the subjects, (ii) the subject's responses, if they became known outside the research, could reasonably place the subject at risk of criminal or civil and (iii) the research deals with sensitive aspects of the subject's own behavior, such as illegal conduct, drug use, sexual behavior, or use of alcohol. All research involving survey or interview procedures is exempt, without exception, when the respondents are elected or appointed public officials or candidates for public office.

(4) Research involving the observation (including observation by participants) of public behavior, except where all of the following conditions exist: (i) observations are recorded in such a manner that the human subjects can be identified, directly or through identifiers linked to the subjects, (ii) the observations recorded about the individual, if they became known outside the research, could reasonably place the subject at risk of criminal or civil liability or be damaging to the subject's financial standing or employability, and (iii) the research deals with sensitive aspects of the subject's own behavior such as illegal conduct, drug use, sexual behavior, or use of alcohol.

(5) Research involving the collection or study of existing data, documents, records, pathological specimens, or diagnostic specimens, if these sources are publicly available or if the information is recorded by the investigator in such a manner that subjects cannot be identified, directly or through identifiers linked to the subjects.

SOURCE: Federal Register, Vol. 46, No. 16 (January 16, 1981), p. 8336.

EXPEDITED CATEGORY CRITERIA

Applicability

(A) Research activities that (a) present no more than minimal risk to human subjects, and (2) involve only procedures listed in one or more of the following categories, may be reviewed by the HRRC through the expedited review procedure authorized by 45 CFR 46.110 and 21 CFR 56.110. The activities listed should not be deemed to be of minimal risk simply because they are included on this list. Inclusion on this list merely means that the activities is eligible for review through the expedited review procedure when the specific circumstances of the proposed research involve no more than minimal risk to human subjects.

(B) The categories in this list apply regardless of the age of subjects, except as noted.

(C) The expedited review procedure may not be used where identification of the subjects and/or their responses would reasonably place them at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, insurability, reputation, or be stigmatizing, unless reasonable and appropriate protections will be implemented so that risks related to invasion of privacy and a breach of confidentiality are no greater than minimal.

(D) The expedited review procedure may not be used for classified research involving human subjects.

(E) HRRCs are reminded that the standard requirements for informed consent (or its waiver, alteration, or exception) apply regardless of the type of review –expedited or convened—utilized by the HRRC.

(F) Categories one (1) through seven (7) pertain to both initial and continuing HRRC review.

Research categories

(1) Clinical studies of drugs and medical devices only when condition (a) or (b) is met.

(a) Research on drugs for which an investigational new drug application (21 CFR Part 312) is not required. (Note: Research on marketed drugs that significantly increases the risks or decreases the acceptability of the risks associated with the use of the product is not eligible for expedited review.)

(b) Research on medical devices for which (I) an investigational device exemption application (21 CFR Part 812) is not required; or (ii) the medical device is cleared/approved for marketing and the medical device is being used in accordance with its cleared/approved labeling.

(2) Collection of blood samples by finger stick, heel stick, ear stick, or venipuncture as follows:

(a) From healthy, nonpregnant adults who weight at least 110 pounds. For these subjects, the amounts drawn may not exceed 550 ml in an 8 week period and collection may not occur more frequently than 2 times per week; or

(b) From other adults and children, considering the age, weight, and health of the subjects, the collection procedure, the amount of blood to be collected, and the frequency with which it will be collected. For these subjects, the amount drawn may not exceed the lesser of 50 ml or 3 ml per kg in an 8 week period and collection may not occur more frequently than 2 times per week.

(3) Prospective collection of biological specimens for research purposes by noninvasive means.

Examples: (a) hair and nail clippings in a nondisfiguring manner; (b) deciduous teeth at time of exfoliation or if routine patient care indicates a need for extraction; (c) permanent teeth if routine patient care indicates a need for extraction: (d) excreta and external secretions (including sweat); (e) uncannulated saliva collected either in an unstimulated fashion or stimulated by chewing gumbase or wax or by applying a dilute citric solution to the tongue; (f) placenta removed at delivery; (g) amniotic fluid obtained at the time of rupture of the membrane prior to or during labor; (h) supra - and subgingival dental plaque and calculus, provided the collection procedure is not more invasive than routine prophylactic scaling of the teeth and the process is accomplished in accordance with accepted prophylactic techniques; (I) mucosal and skin cells collected by buccal scraping or swab, skin swab, or mouth washings; (j) sputum collected after saline mist nebulization.

(4) Collection of data through noninvasive procedures (not involving general anesthesia or sedation) routinely employed in clinical practice, excluding procedures involving x-rays or microwaves. Where medical devices are employed, they must be cleared/approved for marketing. (Studies intended to evaluate the safety and effectiveness of the medical device are not generally eligible for expedited review, including studies of cleared medical devices for new indications.) Examples: (a)

physical sensors that are applied either to the surface of the body or at a distance and do not involve input of significant amounts of energy into the subject or an invasion of the subject's primacy: (b) weighing or testing sensory acuity; (c) magnetic resonance imaging; (d) electrocardiography, electroencephalography, thermography, detection of naturally occurring radioactivity, electroretinography, ultrasound, diagnostic infrared imaging, doppler blood flow, an d echocardiography; (e) moderate exercise, muscular strength testing, body composition assessment, and flexibility testing where appropriate given the age, weight, and health of the individual.

(5) Research involving materials (data, documents, records, or specimens) that have been collected or will be collected solely for nonresearch purposes (such as medical treatment or diagnosis). (**NOTE**: Some research in this category maybe exempt from the HHS regulations for the protection of human subjects. 45 CFR 46.101(b)(4). This listing refers only to research that is not exempt.)

(6) Collection of data from voice, video, digital, or image recordings made for research purposes.

(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identify, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies. (NOTE: Some research in this category may be exempt from the HHS regulations for the protection of human subjects 45 CFR 46.101(b)(2) and (b)(3). This listing refers only to research that is not exempt.)

(8) Continuing review of research previously approved by the convened HRRC as follows:
(a) where (i) the research is permanently closed to the enrollment of new subjects: (ii) all subjects have completed all research-related interventions; and (iii) the research remains active only for long-term follow-up of subjects; or
(b) where no subjects have been enrolled and no additional risks have been identifies; or
(c) where the remaining research activities are limited to data analysis

(9) Continuing review of research, not conducted under an investigational new drug application or investigational device exemption where categories two (2) through eight (8) do not apply but the HRRC has determined and documented at a convened meeting that the research involved no greater than minimal risk and no additional risks have been identified. Dated: November 1998

[1] An expedited review procedure consists of a review of research involving human subjects by the HRRC chairperson or by one or more experienced reviewers designated by the chairperson from among members of the HRRC in accordance with the requirements set forth in 45 CFR 46.110.

[2] Children are defined in the HHS regulations as ―persons who have not attained the legal age for consent to treatments or procedures involved in the research, under the applicable law of the jurisdiction in which the research will be conducted.‖ 45 CFR 46.402(a).

Researchers and/or their faculty mentors are encouraged to contact CHP Associate Dean of Research, Dr. Theresa Bacon –Baguley and/or GVSU HRRC Chair regarding any questions about which category to submit their research study for HRRC review.

All research submissions for new protocols to GVSU HRRC must first be reviewed and approved by CHP Associate Dean of Research (in addition to your DPT faculty mentor/collaborator).

GENERAL INSTRUCTIONS FOR PREPARING HUMAN SUBJECTS CONSENT FORM

This form is prepared by the investigator to suit the particular research design. The title of the project is entered at the top of page followed by a brief explanation of the study. A copy of this included with the proposal when presented for approval to the Human Research Review Committee.

Informed Consent:

The basic elements of information necessary to such consent includes:

1. A fair explanation of the procedure to be followed and their purpose, including identification of any procedures which are experimental

2. A description of any attendant discomforts and risks reasonably to be expected.

3. A description of any benefits reasonably expected.

4. A disclosure of any appropriate alternative procedures that might be advantageous to the subject.

5. An offer to answer any inquiries concerning the procedure.

6. An instruction that the person is free to withdraw his consent and to discontinue participation in the project at any time without prejudice to the subject.

7. Informed consent should be written in ordinary language not exceeding 8^{th} grade reading level.

Refer to HRRC website (http://www.gvsu.edu/hrrc) for further instructions and specific guidelines for consent forms and submission process.

Once research proposal is approved by research mentor, researchers are expected to notify HRRC of any proposed changes to methods and any unforeseen risks or adverse events.

APPENDIX C

Additional Forms

RESEARCH PROJECT CONTRACT

I,_____, having read Part II of the Research Handbook and the corresponding Appendices, do agree that I will be an active participant in the completion of the total project as required to complete PT 790 and PT 793. I further recognize that the final grade for such a project is dependent upon total cooperation among the team members and their combined equal efforts.

I further agree that the activities on page two of this document will be completed by me within the stated projected timeline.

If at any time, during the development and completion of this project, it is determined by my follow team member(s) and my research mentor, that my contribution is less than agreed to, I understand that I will be called upon to make a formal explanation. My research mentor and the project team will review this explanation.

It is understood that such a review will determine my ability to continue with the project. Should it be determined that it is not appropriate for me to continue, I realize that I will have to initiate and complete another acceptable research activity in order to complete the requirement for the degree.

_____

Student

_____

Date

_____

Faculty Research Mentor

GRAND VALLEY STATE UNIVERSITY

College Of Health Professionals

Standard Release Form

I,_____, hereby give permission to the Grand Valley State University, Physical Therapy Program :

____ 1.To utilize photographs, films, video or audio taped segments of self for educational purposes.

____ 2.To copy or reproduce the following material(s) for educational purposes by faculty and/or students within said institution:

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____ 3. _____

_____

Date:_____Signature: _____

Name Printed: _____

Institution/Agency: _____

Address: _____

City: _____

State:_____Zip: _____

Witness: _____

Date: _____

rh#2/release.frm

APPENDIX D

Grading Criteria for Research Courses PT 790 & 793
Research Project, Systematic Review or Case Report Options

PT 790
Research Project Proposal Systematic Review Proposal Case Report #1

PT 793
Research Project Final Defense & Written Manuscript Systematic Review Defense & Final Written Manuscript Final Case Report Presentation and Written Manuscript

GRADING CRITERIA

PT 790: Research Project Proposal

Name(s): _____

SEMESTER/YEAR:_____

Indicate achievement of criteria by circling the appropriate indicator on the scale below. The written paper submitted at the time of the proposal defense is the product on which the scoring is based.

Introduction (10%)

1. Problem is clearly stated.
   Fully met 5 4 3 2 1 Not met
2. Significance of problem is clear.
   Fully met 5 4 3 2 1 Not met
3. Purpose of study is clearly stated.
   Fully met 5 4 3 2 1 Not met

Literature Review (25%)

1. All relevant topic areas are presented.
   Fully met 5 4 3 2 1 Not met
2. Research reports clearly presented., i.e., what was studied, on whom, how studied, results, relationship to other studies, relationship to proposed study.
   Fully met 5 4 3 2 1 Not met
3. Literature review is summarized with implications for proposed study.
   Fully met 5 4 3 2 1 Not met
4. Research questions and hypothesis(ses) are clearly stated.
   Fully met 5 4 3 2 1 Not met
5. Important terms are defined.
   Fully met 5 4 3 2 1 Not met

Methodology (25%)

1. Research design is fully described.
   Fully met 5 4 3 2 1 Not met
2. Research design is appropriate to solution of problem.
   Fully met 5 4 3 2 1 Not met
3. Research design is free of specific weaknesses.
   Fully met 5 4 3 2 1 Not met
4. Population and sample is described.
   Fully met 5 4 3 2 1 Not met
5. Method of sampling is appropriate.
   Fully met 5 4 3 2 1 Not met
6. Instruments used are described.
   Fully met 5 4 3 2 1 Not met
7. Validity and reliability of measurements and measurement instrumentation or trustworthiness in qualitative studies are described or established and maintained.
   Fully met 5 4 3 2 1 Not met
8. Data-gathering methods or procedures are described.
   Fully met 5 4 3 2 1 Not met
9. Data-gathering methods or procedures are appropriate to solution of problem.
   Fully met 5 4 3 2 1 Not met
10. Limitations of design and method are discussed.
    Fully met 5 4 3 2 1 Not met
11. Appropriate forms are included, i.e., informed consent, instructions to subjects, data collection forms, etc.
    Fully met 5 4 3 2 1 Not met

12. Plan for data analysis is presented.
    Fully met 5 4 3 2 1 Not met
13. Data analysis plan is appropriate.
    Fully met 5 4 3 2 1 Not met

Style (15%)

1. Correct grammar (including spelling, punctuation, constant tense, word choice, etc.).
   Fully met 5 4 3 2 1 Not met
2. Thoughts are presented clearly and progress logically with appropriate transitions.
   Fully met 5 4 3 2 1 Not met
3. Style used is consistent with the School of Health Professions and APA/AMA Manuals.
   Fully met 5 4 3 2 1 Not met
4. References are correctly cited.
   Fully met 5 4 3 2 1 Not met
5. Recommended revisions were made in a timely manner.
   Fully met 5 4 3 2 1 Not met

Oral Defense (10%)

1. Summarized research hypothesis(ses).or question(s)
   Fully met 5 4 3 2 1 Not met
2. Summarized previous research reported in the literature.
   Fully met 5 4 3 2 1 Not met
3. Summarized methodology and analysis used
   Fully met 5 4 3 2 1 Not met
4. Summarized research limitations.
   Fully met 5 4 3 2 1 Not met
5. Demonstrated understanding and synthesis of previous literature relative to students' research.
   Fully met 5 4 3 2 1 Not met
6. Defended methodology and analytic approach or statistics utilized.
   Fully met 5 4 3 2 1 Not met

Active participation and adherence to contract (if applicable) and deadlines (15%)

Fully met 5 4 3 2 1 Not met

Comments:

RESEARCH PROPOSAL GRADE: _____

_____ _____

Signature of Faculty Mentor **Date**

GRADING CRITERIA
PT 793
Research Project- Chapter Format

SEMESTER/YEAR:_____ Student(s) _____

_____

Provide comments evaluating the student's ability to discuss the following criteria that indicate the ability to critically analyze and synthesize knowledge in the subject of the research project and its implications for the profession:

(Indicate achievement of criteria by circling the appropriate indicator on the scale below.) The written paper submitted at the time of the final defense is the product on which the scoring is based.

Implementation (10%)

1. Data gathering methods or procedures were utilized correctly, i.e. appropriate to the question.
   Fully met 5 4 3 2 1 Not met

2. Validity and reliability of the selected instruments and data were identified.
   Fully met 5 4 3 2 1 Not met

3. Methods utilized in analyzing data were applied correctly.
   Fully met 5 4 3 2 1 Not met

4. Committee members were utilized effectively and appropriately.
   Fully met 5 4 3 2 1 Not met

Written Thesis (35%)

Results

1. Results of analysis were presented clearly in an organized manner.
   Fully met 5 4 3 2 1 Not met

2. Tables and figures were used effectively to enhance presentation of results.
   Fully met 5 4 3 2 1 Not met

Discussion and Conclusions

1. Interpretation of data analysis was accurate.
   Fully met 5 4 3 2 1 Not met

2. Discussion/conclusions related to conceptual framework and research question(s).
   Fully met 5 4 3 2 1 Not met

3. Discussion was complete and in-depth; findings of study were related to previous research as presented in review of the literature.
   Fully met 5 4 3 2 1 Not met

4. Conclusions were substantiated by evidence presented.
   Fully met 5 4 3 2 1 Not met

5. Generalizations were confined to the population from which the sample was drawn.
   Fully met 5 4 3 2 1 Not met

6. Implications for further research were discussed and based on outcomes of the study.
   Fully met 5 4 3 2 1 Not met

7. Implications and significance of research findings for the profession were clearly discussed.
   Fully met 5 4 3 2 1 Not met

Style (10%)

1. Correct grammar was used (including spelling, punctuation, tense, word choice).
   Fully met 5 4 3 2 1 Not met

2. Thoughts were clearly presented and progressed logically with appropriate transitions.
   Fully met 5 4 3 2 1 Not met

3. Style used was consistent with School of Health Professions and APA/AMA requirements.
   Fully met 5 4 3 2 1 Not met

4. References were correctly cited.
   Fully met 5 4 3 2 1 Not met

5. Tone of the report displayed a neutral attitude.
   Fully met 5 4 3 2 1 Not met

6. Recommended revisions were made in a timely manner without repeated feedback.
   Fully met 5 4 3 2 1 Not met

Oral Defense

Oral Presentation (20%)

1. Evidence of preparation and appropriate use of AV (or other) equipment.
   Fully met 5 4 3 2 1 Not met

2. Summarized research questions.
   Fully met 5 4 3 2 1 Not met

3. Summarized previous research reported in the literature.
   Fully met 5 4 3 2 1 Not met

4. Summarized methodology and analysis.
   Fully met 5 4 3 2 1 Not met

5. Summarized results.
   Fully met 5 4 3 2 1 Not met

6. Summarized results relative to previous research.
   Fully met 5 4 3 2 1 Not met

7. Stated conclusions, implications, applications and direction for future research.
   Fully met 5 4 3 2 1 Not met

8. Summarized research limitations.
   Fully met 5 4 3 2 1 Not met

Defense (i.e., ability to answer questions from committee members (20%)

1. Demonstrated understanding and synthesis of previous literature relative to students' research.
   Fully met 5 4 3 2 1 Not met

2. Defended the methodology and analysis used.
   Fully met 5 4 3 2 1 Not met

3. Justified conclusions.
   Fully met 5 4 3 2 1 Not met

Active Participation and Adherence to contract (if applicable) and deadlines (5%)

Fully met 5 4 3 2 1 Not met

Comments:

RESEARCH PROJECT GRADE: _____

_____ _____

Signature of Faculty Mentor **Date**

GRADING CRITERIA
PT 793
Research Project-Journal Format Manuscript

SEMESTER/YEAR:_____ Student(s) _____

Provide comments evaluating the student's ability to discuss the following criteria that indicate the ability to critically analyze and synthesize knowledge in the subject of the research project and its implications for the profession: (Indicate achievement of criteria by circling the appropriate indicator on the scale below.) The written paper submitted at the time of the proposal defense is the product on which the scoring is based.

Implementation (10%)

1. Data gathering methods or procedures were utilized correctly, i.e. appropriate to the question.
   Fully met 5 4 3 2 1 Not met

2. Validity and reliability of the selected instruments and data were identified.
   Fully met 5 4 3 2 1 Not met

3. Methods utilized in analyzing data were applied correctly.
   Fully met 5 4 3 2 1 Not met

4. Committee members were utilized effectively and appropriately.
   Fully met 5 4 3 2 1 Not met

Written Manuscript (35%)

Results

1. Results of analysis were presented clearly in an organized manner.
   Fully met 5 4 3 2 1 Not met

2. Tables and figures were used effectively to enhance presentation of results.
   Fully met 5 4 3 2 1 Not met

Discussion and Conclusions

1. Interpretation of data analysis was accurate.
   Fully met 5 4 3 2 1 Not met

2. Discussion/conclusions related to conceptual framework and research question(s).
   Fully met 5 4 3 2 1 Not met

3. Discussion was concise; findings of study were related to previous research, as presented in review of the literature
   Fully met 5 4 3 2 1 Not met

4. Conclusions were substantiated by evidence presented.
   Fully met 5 4 3 2 1 Not met

5. Generalizations were confined to the population from which the sample was drawn.
   Fully met 5 4 3 2 1 Not met

6. Implications for further research were discussed and based on outcomes of the study.
   Fully met 5 4 3 2 1 Not met

7. Implications and significance of research findings for the profession were clearly discussed.
   Fully met 5 4 3 2 1 Not met

Style (10%)

1. Correct grammar was used (including spelling, punctuation, tense, word choice).
   Fully met 5 4 3 2 1 Not met

2. Thoughts were clearly presented and progressed logically with appropriate transitions.
   Fully met 5 4 3 2 1 Not met

3. Style used was consistent with the appropriate journal requirements.
   Fully met 5 4 3 2 1 Not met

4. References were correctly cited.
   Fully met 5 4 3 2 1 Not met

5. Tone of the report displayed a neutral attitude.
   Fully met 5 4 3 2 1 Not met

6. Recommended revisions were made in a timely manner without repeated feedback.
   Fully met 5 4 3 2 1 Not met

Oral Defense

Oral Presentation (20%)

1. Evidence of preparation and appropriate use of AV (or other) equipment.
   Fully met 5 4 3 2 1 Not met

2. Summarized research questions.
   Fully met 5 4 3 2 1 Not met

3. Summarized previous research reported in the literature.
   Fully met 5 4 3 2 1 Not met

4. Summarized methodology and analysis.
   Fully met 5 4 3 2 1 Not met

5. Summarized results.
   Fully met 5 4 3 2 1 Not met

6. Summarized results relative to previous research.
   Fully met 5 4 3 2 1 Not met

7. Stated conclusions, implications, applications and direction for future research.
   Fully met 5 4 3 2 1 Not met

8. Summarized research limitations.
   Fully met 5 4 3 2 1 Not met

Defense – i.e., ability to answer questions from committee members (20%)

1. Demonstrated understanding and synthesis of previous literature relative to students' research.
   Fully met 5 4 3 2 1 Not met

2. Defended the methodology and analysis used.
   Fully met 5 4 3 2 1 Not met

3. Justified and defended conclusions and clinical implications.
   Fully met 5 4 3 2 1 Not met

Active Participation and Adherence to contract and deadlines (5%)

Fully met 5 4 3 2 1 Not met

Comments:

RESEARCH GRADE: _____

_____ _____

Signature of Faculty Mentor **Date**

GRADING CRITERIA
PT 790
Case Report

Semester/Year:_____Case Report Title: _____

Student's Name: _____

Indicate achievement of criteria by circling the appropriate indicator on the scale below.

Written Manuscript

Introduction (15%)

1. Identifies purpose and describes the focus of the case.
   Fully met 5 4 3 2 1 Not met
2. Provides rationale for the importance of topic/focus.
   Fully met 5 4 3 2 1 Not met
3. Provides background information from the literature related to the purpose to facilitate understanding of the problem and intervention.
   Fully met 5 4 3 2 1 Not met

Patient Description (15%)

1. Provides sufficient information to allow identification of similar cases.
   Fully met 5 4 3 2 1 Not met
2. Includes relevant history, medical, psychosocial and demographic data.
   Fully met 5 4 3 2 1 Not met
3. Includes description of tests used and cites references.
   Fully met 5 4 3 2 1 Not met
4. Validity and reliability of tests and measures are described and referenced.
   Fully met 5 4 3 2 1 Not met
5. Terms used are operationally defined.
   Fully met 5 4 3 2 1 Not met
6. Tables, figures and illustrations complement text.
   Fully met 5 4 3 2 1 Not met

Intervention (15%)

1. Examination, evaluation, diagnosis, and prognosis are clearly explained and supported by the data presented.
   Fully met 5 4 3 2 1 Not met
2. Provides plan of care, including physical therapy goals and expected outcome is provided.
   Fully met 5 4 3 2 1 Not met
3. Describes clinical decision-making process and rationale for intervention is provided, explained and referenced.
   Fully met 5 4 3 2 1 Not met
4. Interventions are described in detail and referenced.
   Fully met 5 4 3 2 1 Not met
5. Frequency, intensity and duration of treatment are described and referenced.
   Fully met 5 4 3 2 1 Not met
6. Tables, figures and illustrations effectively designed and used to summarize interventions.
   Fully met 5 4 3 2 1 Not met

Outcome (15%)

1. Objective data are provided as consistent with the purpose of the case.
   Fully met 5 4 3 2 1 Not met
2. Includes objective data regarding changes in functional abilities.
   Fully met 5 4 3 2 1 Not met
3. Results relate to purpose, diagnosis, treatment and prognosis.
   Fully met 5 4 3 2 1 Not met
4. Tables, figures and illustrations effectively designed to reflect outcomes, where appropriate.
   Fully met 5 4 3 2 1 Not met

Discussion (20%)

1. Links case to purpose and reviewed evidence/literature.
   Fully met 5 4 3 2 1 Not met
2. Discusses theoretical basis for intervention and clinical decisions.
   Fully met 5 4 3 2 1 Not met
3. Reflects on case management and outcomes.
   Fully met 5 4 3 2 1 Not met
4. Discussed potential factors influencing outcomes.
   Fully met 5 4 3 2 1 Not met
5. Strengths and weaknesses of case management discussed.
   Fully met 5 4 3 2 1 Not met
6. Discusses learning that came about as a result of this case and relevance for future.
   Fully met 5 4 3 2 1 Not met
7. Poses research questions.
   Fully met 5 4 3 2 1 Not met
8. Cites references to support explanations.
   Fully met 5 4 3 2 1 Not met

Style and Revisions (10%)

1. Correct grammar (including spelling, punctuation, constant tense, word choice, etc.) and uses person-first language.
   Fully met 5 4 3 2 1 Not met
2. Thoughts are presented clearly and progress logically with appropriate transitions.
   Fully met 5 4 3 2 1 Not met
3. Style used is consistent with that proposed by the American Physical Therapy Association.
   Fully met 5 4 3 2 1 Not met
4. References are correctly cited.
   Fully met 5 4 3 2 1 Not met
5. Recommended revisions were made in a timely manner.
   Fully met 5 4 3 2 1 Not met

Oral Defense (10%)

1. Demonstrates understanding of background, theory or framework for the case report, addresses the gaps in the research, and provides supporting literature for case management
   Fully met 5 4 3 2 1 Not met
2. Cleary states purpose and focus of the case report
   Fully met 5 4 3 2 1 Not met
3. Concisely and clearly presents case history and examination findings, including justification and reliability/validity & MDC for selected tests and measures.
   Fully met 5 4 3 2 1 Not met
4. Discusses evaluation and interpretation of findings, diagnosis, and prognosis that guided PT plan of care
   Fully met 5 4 3 2 1 Not met
5. Clearly describes selected interventions with rationale for their use
   Fully met 5 4 3 2 1 Not met
6. Explains clinical decision-making regarding progression and modifications of selected interventions
   Fully met 5 4 3 2 1 Not met

7. Discusses patient outcomes and their relationship to stated purpose of case report
   Fully met 5 4 3 2 1 Not met
8. Reflects on case management and patient outcomes
   Fully met 5 4 3 2 1 Not met
9. Discusses clinical findings relative to previous literature
   Fully met 5 4 3 2 1 Not met
9. Justifies conclusions and clinical implications of case report, including limitations and recommendations for future research
   Fully met 5 4 3 2 1 Not met

RESEARCH GRADE: _____

COMMENTS:

_____ _____

Signature of Faculty Mentor **Date**

GRADING CRITERIA
PT 793
Case Report

Semester/Year:_____Case Report Title: _____

Student's Name: _____

Indicate achievement of criteria by circling the appropriate indicator on the scale below.

Written Manuscript

Introduction (10%)

1. Identifies purpose and describes the focus of the case
   Fully met 5 4 3 2 1 Not met
2. Provides rationale for the importance of topic/focus.
   Fully met 5 4 3 2 1 Not met
3. Provides background information from the literature related to the purpose to facilitate understanding of the problem and intervention.
   Fully met 5 4 3 2 1 Not met

Patient Description (15%)

1. Provides sufficient information to allow identification of similar cases.
   Fully met 5 4 3 2 1 Not met
2. Includes relevant history, medical, psychosocial and demographic data.
   Fully met 5 4 3 2 1 Not met
3. Includes description of tests used and cites references.
   Fully met 5 4 3 2 1 Not met
4. Validity and reliability of tests and measures are described and referenced.
   Fully met 5 4 3 2 1 Not met
5. Terms used are operationally defined.
   Fully met 5 4 3 2 1 Not met
6. Tables, figures and illustrations complement text.
   Fully met 5 4 3 2 1 Not met

Intervention (15%)

1. Examination, evaluation, diagnosis, and prognosis are clearly explained and supported by the data presented.
   Fully met 5 4 3 2 1 Not met
2. Provides plan of care, including physical therapy goals and expected outcome is provided.
   Fully met 5 4 3 2 1 Not met
3. Describes clinical decision-making process and rationale for intervention is provided, explained and referenced.
   Fully met 5 4 3 2 1 Not met
4. Interventions are described in detail and referenced.
   Fully met 5 4 3 2 1 Not met
5. Frequency, intensity and duration of treatment are described and referenced.
   Fully met 5 4 3 2 1 Not met
6. Tables, figures and illustrations effectively used to summarize interventions.
   Fully met 5 4 3 2 1 Not met

Outcome (10%)

1. Objective data are provided as consistent with the purpose of the case. Fully met
   5 4 3 2 1 Not met
2. Includes objective data regarding changes in functional abilities. Fully met 5
   4 3 2 1 Not met
3. Results relate to purpose, diagnosis, treatment and prognosis. Fully
   met 5 4 3 2 1 Not met
4. Tables, figures and illustrations effectively designed to summarize outcomes where appropriate.
   Fully met 5 4 3 2 1 Not met

Discussion (20%)

1. Links case to purpose and reviewed evidence/literature. Fully
   met 5 4 3 2 1 Not met
2. Discusses theoretical basis for intervention and clinical decisions.
   Fully met 5 4 3 2 1 Not met
3. Reflects on case management and outcomes.
   Fully met 5 4 3 2 1 Not met
4. Discussed potential factors influencing outcomes. Fully
   met 5 4 3 2 1 Not met
5. Strengths and weaknesses of case management discussed.
   Fully met 5 4 3 2 1 Not met
6. Discusses learning that came about as a result of this case and relevance for future.
   Fully met 5 4 3 2 1 Not met
7. Poses future research questions.
   Fully met 5 4 3 2 1 Not met
8. Cites References to support explanations.
   Fully met 5 4 3 2 1 Not met

Style and Revisions (10%)

1. Correct grammar (including spelling, punctuation, constant tense, word choice, etc.) and uses people-first language.
   Fully met 5 4 3 2 1 Not met
2. Thoughts are presented clearly and progress logically with appropriate transitions.
   Fully met 5 4 3 2 1 Not met
3. Style used is consistent with that proposed by the American Physical Therapy Association.
   Fully met 5 4 3 2 1 Not met
4. References are correctly sited.
   Fully met 5 4 3 2 1 Not met
5. Recommended revisions were made in a timely manner.
   Fully met 5 4 3 2 1 Not met

Oral Defense (20%)

1. Demonstrates understanding of background, theory or framework for the case report, addresses the gaps in the research, and provides supporting literature for case management
   Fully met 5 4 3 2 1 Not met
2. Cleary states purpose and focus of the case report
   Fully met 5 4 3 2 1 Not met
3. Concisely and clearly presents case history and examination findings, including justification and reliability/validity & MDC for selected tests and measures.
   Fully met 5 4 3 2 1 Not met

4. Discusses evaluation and interpretation of findings, diagnosis, and prognosis that guided PT plan of care
   Fully met 5 4 3 2 1 Not met
5. Clearly describes selected interventions with rationale for their use.
   Fully met 5 4 3 2 1 Not met
6. Explains clinical decision-making regarding progression and modifications of selected interventions
   Fully met 5 4 3 2 1 Not met
7. Discusses patient outcomes and their relationship to stated purpose of case report
   Fully met 5 4 3 2 1 Not met
8. Reflects on case management and patient outcomes
   Fully met 5 4 3 2 1 Not met
9. Discusses clinical findings relative to previous literature
   Fully met 5 4 3 2 1 Not met
10. Justifies conclusions and clinical implications of case report, including limitations and recommendations for future research
    Fully met 5 4 3 2 1 Not met

RESEARCH GRADE: _____

COMMENTS:

_____ _____

Signature of Faculty Mentor **Date**

GRADING CRITERIA
PT 790
Systematic Review Proposal

Title: _____

Student Names: _____

The written paper submitted at the time of the proposal defense is the product on which the scoring is based.

Background on the Research Question (10%)

1. Clinical question is clearly stated.
   Fully Met 5 4 3 2 1 Not met
2. Clinical significance of question is clear.
   Fully Met 5 4 3 2 1 Not met
3. Purpose of and need for literature review is clearly stated.
   Fully Met 5 4 3 2 1 Not met

Literature Review (25%)

1. All relevant topic areas are presented.
   Fully met 5 4 3 2 1 Not met

2. Literature review is summarized with implications for proposed review.
   Fully met 5 4 3 2 1 Not met

3. A summary of facts, problems or controversies found in the literature is provided.
   Fully Met 5 4 3 2 1 Not met

Methodology (25%)

1. Research design is fully described.
   Fully met 5 4 3 2 1 Not met

2. Research design is appropriate to solution of problem.
   Fully met 5 4 3 2 1 Not met

3. Inclusion and exclusion criteria are described.
   Fully met 5 4 3 2 1 Not met

4. Method for assessing level of evidence and methodological rigor is described..
   Fully met 5 4 3 2 1 Not met

5. Search terms and databases for literature search are described.
   Fully met 5 4 3 2 1 Not met

6. Appropriate forms are included, i.e., investigator scoring sheets for level of evidence and rigor
   Fully met 5 4 3 2 1 Not met

Style (15%)

1. Correct grammar (including spelling, punctuation, constant tense, word choice, etc.).
   Fully met 5 4 3 2 1 Not met

2. Thoughts are presented clearly and progress logically with appropriate transitions.
   Fully met 5 4 3 2 1 Not met

3. Style used is consistent with the School of Health Professions and APA/AMA Manuals.

Fully met 5 4 3 2 1 Not met

4. References are correctly cited.
   Fully met 5 4 3 2 1 Not met

5. Recommended revisions were made in a timely manner.
   Fully met 5 4 3 2 1 Not met

Oral Defense (10%)

2. Summarized research hypothesis(ses).or question(s)
   Fully met 5 4 3 2 1 Not met

3. Summarized previous research reported in the literature.
   Fully met 5 4 3 2 1 Not met

4. Summarized methodology and analysis used
   Fully met 5 4 3 2 1 Not met

5. Summarized limitations of review.
   Fully met 5 4 3 2 1 Not met

6. Demonstrated understanding and synthesis of previous literature relative to students' research.
   Fully met 5 4 3 2 1 Not met

7. Defended methodology and analytic approach or statistics utilized.
   Fully met 5 4 3 2 1 Not met

Active participation and adherence to contract (if applicable) and deadlines (15%)

Fully met 5 4 3 2 1 Not met

Comments:

RESEARCH PROPOSAL GRADE: _____

_____ _____

Signature of Faculty Mentor **Date**

GRADING CRITERIA
PT 793
Systematic Review

SEMESTER/YEAR:_____ Student(s) _____

Title:_____

Provide comments evaluating the student's ability to discuss the following criteria that indicate the ability to critically analyze and synthesize knowledge in the subject of the thesis and its implications for the profession :

(Indicate achievement of criteria by circling the appropriate indicator on the scale below.) The written paper submitted at the time of the final defense is the product on which the scoring is based.

Implementation (10%)

1. Data gathering methods or procedures were utilized correctly, i.e. appropriate to the question.
   Fully met 5 4 3 2 1 Not met

2. Methods utilized in analyzing the literature were applied correctly.
   Fully met 5 4 3 2 1 Not met

3. Committee members were utilized effectively and appropriately.
   Fully met 5 4 3 2 1 Not met

Written Manuscript (35%)

Results

1. States results of search, and provides number and description of studies included and excluded (including reason for exclusion)
   Fully met 5 4 3 2 1 Not met

2. Succinctly summarizes included studies with regard to level of evidence and methodological rigor
   Fully met 5 4 3 2 1 Not met

3. Accurately summarizes findings of review with regard to the research question
   Fully met 5 4 3 2 1 Not met

4. Uses tables and figures effectively to assist with presentation of results of level of evidence, rigor, or summary of included studies
   Fully met 5 4 3 2 1 Not met

Discussion and Conclusions

1. Interpretation of literature review was accurate.
   Fully met 5 4 3 2 1 Not met

2. Discussion/conclusions related to conceptual framework and research question(s).
   Fully met 5 4 3 2 1 Not met

3. Discussion was concise; findings of study were related to previous research, as presented in review of the literature
   Fully met 5 4 3 2 1 Not met

4. Generalizations were confined to the population from which the sample was drawn.
   Fully met 5 4 3 2 1 Not met

5. Implications for further research were discussed and based on outcomes of the study.

Fully met 5 4 3 2 1 Not met

6. Implications and significance of research findings for clinical practice were clearly discussed.
   Fully met 5 4 3 2 1 Not met

7. Conclusions were substantiated by evidence presented.
   Fully met 5 4 3 2 1 Not met

Style (10%)

1. Correct grammar was used (including spelling, punctuation, tense, word choice).
   Fully met 5 4 3 2 1 Not met

2. Thoughts were clearly presented and progressed logically with appropriate transitions.
   Fully met 5 4 3 2 1 Not met

3. Style used was consistent with the appropriate journal requirements.
   Fully met 5 4 3 2 1 Not met

4. References were correctly cited.
   Fully met 5 4 3 2 1 Not met

5. Tone of the report displayed a neutral attitude.
   Fully met 5 4 3 2 1 Not met

6. Recommended revisions were made in a timely manner without repeated feedback.
   Fully met 5 4 3 2 1 Not met

Oral Defense

Oral Presentation (20%)

1. Evidence of preparation and appropriate use of AV (or other) equipment.
   Fully met 5 4 3 2 1 Not met

2. Summarized need and rationale for present review
   Fully met 5 4 3 2 1 Not met

3. Summarized research questions.
   Fully met 5 4 3 2 1 Not met

4. Summarized methodology and analysis.
   Fully met 5 4 3 2 1 Not met

5. Summarized results.
   Fully met 5 4 3 2 1 Not met

6. Summarized results relative to previous research.
   Fully met 5 4 3 2 1 Not met

7. Stated conclusions, implications, applications and direction for future research.
   Fully met 5 4 3 2 1 Not met

8. Summarized research limitations.
   Fully met 5 4 3 2 1 Not met

Defense – i.e., ability to answer questions from committee members (20%)

1. Demonstrated understanding and synthesis of previous literature relative to students' research.
   Fully met 5 4 3 2 1 Not met

2. Defended the methodology and analysis used.
   Fully met 5 4 3 2 1 Not met

3. Justified and defended conclusions and clinical implications.
   Fully met 5 4 3 2 1 Not met

Active Participation and Adherence to contract (if applicable) and deadlines (5%)
Fully met 5 4 3 2 1 Not met

Comments:

RESEARCH GRADE: _____

_____ _____
Signature of Faculty Mentor **Date**

APPENDIX E

Research Funding Information

FUNDING SOURCES:

MPTA INSTITUTE SMALL RESEARCH GRANT PROGRAM & APPLICATION

As part of its role in supporting and encouraging research in the State of Michigan, the MPTA Institute for Education and Research has a small research grant program that is intended to provide out-of-pocket expenses/seed money for either basic or clinical research relating to physical therapy and to encourage the development of new projects.

Funding: Multiple grants of $100 each will be awarded annually.

Eligibility: Professional membership in the MPTA is required. Eligible researchers must be licensed physical therapists/physical therapist assistants or PT/PTA students (with an established faculty advisor) within the state of Michigan.

Deadline: Application deadline is August 1st of each year.

Submission: Applications may be submitted electronically to mpta@mpta.com. In the Subject Box, write: Institute Small Research Grant Application.

Commitment: Grant recipients must agree to present their research findings at the MPTA Fall Conference after completion of the study. Researchers should submit an abstract to the MPTA Fall Conference Research Committee according to established procedures and should acknowledge the Institute as a source of funding.

To apply, please provide the following information:

The abstract should be a brief description of the proposed project including the purpose, methods, expected results, and potential relevance of the study to physical therapy. It should be no longer than one single-spaced page.

A cover letter should contain::

- Licensed physical therapists/physical therapist assistants = name, employer, address, telephone number, e-mail, & APTA/MPTA membership number.
- PT/PTA students = name, school, address, telephone number, & e-mail.
- A statement of what the grant money will be used for.
- A statement of where the research will take place.
- A statement of compliance with all appropriate human/animal use.
  Endorsement of the investigator's supervisor (for students, the research advisor) stating that the project is feasible and that it adheres with institutional policies and procedures.

GVSU CENTER FOR SCHOLARLY AND CREATIVE EXCELLENCE

Students are encouraged to pursue funding through GVSU's Center for Scholarly and Creative Excellence which offers grants to support the research endeavors of graduate students. For more information on current opportunities please visit: https://www.gvsu.edu/csce/student-support-23.htm

Scholarship Funds

Presidential Research Grants
Academic Conference Fund
Academic and Professional Enrichment Fund

Research Poster Printing Funds

Department of Physical Therapy Policy for Scholarship Funding for Research Poster Printing

The Physical Therapy Department will award funding support for the cost of poster printing (not to exceed the cost of printing a poster at the GVSU promotions office) for those students who submit an abstract and are accepted for State or National conferences to disseminate their research project, systematic review, or case report. Awards will be based on the availability of funds in the Physical Therapy Departmental budget for that fiscal year. To apply for these funds, students must submit their research abstract and evidence of acceptance to the PT Research Committee.

APPENDIX F

Data Analysis Information

DATA ANALYSIS ASSISTANCE ON CAMPUS

The Statistical Consulting Center (SCC) at GVSU

Location: **MAK A-1-178 on the GVSU Allendale Campus**
Phone: 331-3355

Appointments: All appointments made online: www.gvsu.edu/scc

Center Director – Sango Otieno PhD

Services Available To:

Faculty We will provide help with any part of a project that is for **research** purposes or for **instructional** purposes. More specifically, the SCC will provide help with such items as the writing of a questionnaire, the method of analysis, the use of statistical computer programs, the interpretation of results, and the presentation of the results.

Students Same as faculty, but for **research** activity only. The student's advisor must indicate, in writing, the level and amount of assistance to be rendered. This includes finding a statistician to serve on a research advisory team.

Staff We will provide statistical help that is directly related to GVSU.

Applying for Consulting Assistance

Any member of the Grand Valley State University community wishing to obtain assistance from the Statistical Consulting Center needs to prepare a short statement of the research program (one or two paragraphs). The statement should briefly describe the overall project, the data, the research hypotheses of interest, and where you are at in the project.

Consulting Sessions

The initial consulting session will take place with a faculty member from the Department of Mathematics and Statistics. This session may often be purely expository, with the researcher explaining his or her research problem and the type of assistance that is needed. The faculty member will then decide how the Consulting Center can best help. In some cases, this may mean consulting with another member of the department and possibly having them contact the researcher for a future meeting. In this way, we can best match researchers with the statistician that is more knowledgeable with the area of their research. **The Center services are *not* available for the Spring/Summer terms**.

Acknowledgement and Co-author:

The Statistical Consulting Center should be acknowledged in any paper for which the Center gives advice. If a major amount of work is done on any research project, the consultant should be named as a co-author per authorship guidelines outlined by Center for Creative and Scholarly Excellence.

REQUEST FOR ASSISTANCE FORM

GVSU STATISTICAL LABORATORY
REQUEST FOR ASSISTANCE

Name_____ Date _____
Address_____ Phone _____

A brief summary of your research project:

I would like assistance with (check all that apply):

[ ] choosing a research design	[ ] analyzing data
[ ] reporting/interpreting results	[ ] manipulating data
[ ] stating/testing hypotheses	[ ] selecting samples
[ ] choosing statistical models	[ ] estimation/prediction
[ ] designing questionnaires	[ ] other

I plan to complete this stage of my research by_____.

rh#2/assist.frm

TO: GVSU Faculty & Staff
FROM: Dr. Yousceek Jeong, Department of Mathematics and Statistics
(331-2444)
RE: Statistical Consulting Service (Winter Semester)

You are planning a survey or working on a research project? Would you like a professionally supervised statistical data analysis? If so, please return the request form below. This statistical consulting service is available during the Winter semester through **Math 319, Statistics Project.** This service will include handling your data on the computer, performing the appropriate statistical analysis, and interpreting the results of the study.

What is Math 319? Successful college graduates are those who are strong in oral and written communication, have excellent consulting and interpersonal skills, and have the ability to communicate statistical results clearly to general audiences. Math 319 is a course designed to meet this increasing requirement of business and industry for qualified personnel who can provide leadership by making management decision that are based on disciplined data collection and statistical analysis.

You can also help us! Our goal is that students receive "hands-on" experience in communicating with real world statistical data analyses. Therefore, we are soliciting the faculty and staff at GVSU for projects to be used in this course. Thanks for your help.

APPENDIX G

Presentation Information

PRESENTATION GUIDELINES

These guidelines apply to any presentation that you may give to any audience within and outside this program: class presentations, clinical in-services, and research presentations.

1. Most people find it difficult to grasp complex, technical concepts from verbal explanations alone. For that reason, you must use **audio-visual** (A-V) materials when you present research.

2. **Handouts** for the audience and/or abstracting your study findings may be helpful as well.

3. Whether you use powerpoint slides, film, or video; you should strive to **highlight the essential ideas** of your material in the simplest form possible. Visual images and sound leave lasting impressions that reinforce the points you wish to make. The net effect is a more involved, satisfied, and attentive audience.

4. **Choose your aids to reach that particular intended audience**, and to accommodate the size of the arena in which you will present. For example, where the room is small and your audience is knowledgeable about your material and also seated very close, (e.g. during the defense of your research project) you may wish to use slides or a video presentation and a lot of technical information. However, when you address a large audience that includes lay people and takes place in an auditorium, (e.g. DPT Research day or MERC Research Forum) you may choose to use simple powerpoint slides that outline and illustrate your main ideas, and you may address your audience with less technical information, keeping jargon to a minimum.

5. Try to **create a professional impression** with the materials you use for formal presentations (e.g. your Defense, the Research Forum, poster presentation at conferences). Please direct your questions to the faculty in your program for assistance with this on campus. { A Research Seminar on tips for designing platform and poster presentations will be given during Winter of your 3rd year in DPT program by DPT Faculty Research Committee}.

6. Finally, you should **always test your A-V aids** in the room that will house your presentation, as far in advance as possible. Of course, to avoid unpleasant surprises, you will also need to test your equipment again on the day of your presentation.

7. Additional resources follow in this appendix and are available in the HPR library.

rh#2/present

PHYSICAL THERAPY FORUM

YOU CAN SPEAK PUBLICLY... AND ENJOY IT!!

By Beth E. Salo, P.T.
Contributing editor/Consultant

At some point in their career, most therapists will be required to participate in some form of public speaking. Possibilities include in-services, addressing civic groups, presenting research, or even teaching classes. Many people understandably feel nervous in those situations. There are, however, some basic guidelines that, if followed, can make the experience successful, rewarding, and maybe even fun! These guidelines are just that – guidelines. As you become more experienced, you will find you own ways of preparing and speaking.

There are two main aspects to giving a public speech that need to be included: Preparing and Presentation. These two areas are equally important in giving a successful speech. Neglect one of these areas, and your speech may be a disaster. I have found, through much experience, that if I have both of these areas under control, I can relax and enjoy myself.

Preparation. If you are not ready to give the speech, there is no way you will present it well. There are several areas that are included in preparation.

Preparation
topic research write practice

First of all, pick an interesting topic. If the topic has been chosen for you, find a unique approach to it. One way or another, you need to be interested in you topic so that you can make it interesting to someone else. If the topic is one that seems worn out, find a new approach to it. For example if giving an inservices on body mechanics and transfers, use superman for an illusion. Use your imagination, and see what comes out. One final note: for inservices that have voluntary attendance, a catchy title may help.

Next, do your research. You need to know enough about the subject to tell your audience something new or give them a new perspective. You also need to be able to answer questions or refer them to the proper source to have their questions answered. Who knows, you may find some obscure fact in your research that makes the speech exceptional.

Write out your speech. If you are inexperienced in public speaking, I suggest you write your speech out word for word. Make sure that you use appropriate anecdotes, but unless you are good at humor, don't overdo it. Also keep in mind that you need some subtopics if you are going to speak for more than 20 minutes, Twenty minutes is considered the length of a person's attending span for one subject. You will lose most of your audience if you continue on the same subject for longer than those twenty minutes. Once you have written the speech, go back and reread it, then rewrite it. If it doesn't look good on paper, it won't sound good either.

Practice, practice, practice! Practice may not make it perfect, but it will come pretty close. The only way you will know how the speech is going to sound is to practice out loud. You can practice in a mirror, in an empty room, or with a close friend. As you practice, you can edit the speech also. The better you know your speech, the more confidence you will have when you present it. When you feel like you know the speech better, practice some more. You may take an outline with you when you are going to give the speech, if necessary, but it is best to be able to your speech without one. Knowing your speech well, will also allow you to be more spontaneous while presenting. You will be able to change the order of your subtopics, if needed. It will also enable you to deal with the unexpected. For example, during a play I was once in, a major part of the set simply fell down. The cast

immediately set it back up and invented dialog to work it into the play. Some people in the audience never realized that it was not planned!

Presentation – It will be to plan ahead for some areas of your presentation, but if you are confident your presentation will flow more easily. Again, there are several areas which need attention when thinking and doing your presentation.

Presentation
Attire
Don't forget
Eye Contact
Audience
Voice

First of all, dress nicely. Your clothes should be neat and conservative. If you normally like to "dress flashy", calm it down a bit for your presentation or *you* will get much more attention than your speech. And make sure your clothes are neatly pressed.

Don't fidget, but also don't be a statue or a pendulum. Use only natural gestures. Don't add a gesture just to gesture; the audience will recognize the reason behind it immediately. This idea relates back to knowing your speech. You are less apt to act nervous if you are confident in what you're saying.

Maintain eye contact. This may be the hardest part of presenting a speech, but it is one of the most important areas. If you are looking at them, the audience will feel included and pay more attention to what you are saying. Eye contact will also give you invaluable clues as to how your audience is responding. If they all look bored, perhaps now would be a good time to have a subtopic introduced or to give an anecdote. Again, this relates back to knowing your speech well to allow for spontaneity. You also can maintain eye contact better if you don't require notes while giving your speech. Also don't turn your back on your audience while you are speaking.

Use varied tones of voice and pace yourself. Vary the tone of your voice with what you are talking about for emphasis. Using your voice to its full advantage will capture your audience's attention and keep it. Pacing is also important. If you talk too slow, you will lose them and if you talk too slow, you will put them to sleep. Remember – practice beforehand!

Finally, use appropriate visual aids. Don't overdo, but visual aids can give an added dimension to your speech. Visual aids include slides, overheads, posters, demonstrations, etc.

Does public speaking have you running scared? Remember the two areas of preparation and presentation, follow the guidelines, and experience the tremendous satisfaction and feelings of accomplishment when speaking publicly. You can do it!

Some Do's & Don't's for a Successful Podium Presentation By: Dr. Gregory S. Rash
Chair, Communications Committee & Editor of the GCMAS Newsletter

If you are going to give a podium presentation at the GCMAS meeting (or any other professional meeting) you may want to look over this material. While most of the presentations at GCMAS conferences are excellent, many individuals ignore, or simply don't know the "rules of good presentations" when they prepare their powerpoint slides for the conference. In an attempt to expose presenters to some of those "rules" I am drawing on similar advise given by several sources in regards to giving presentations at professional meetings: Richard Nelson (Sports Medicine Bulletin, 1990), Keith Williams (ASB Newsletter, 1990), Kit Vaughan (ASB Newsletter, 1993), Michael Whittle (ISB Newsletter, 1994) and ACSM Instructor for Presentations (1994).

Do's for Making Slides

- DO test slides in a room of similar size to the room you will be presenting. If you can't test in a similar room, follow the 10 times the width of the monitor rule. (i.e. If your computer monitor is 11 inches wide (not diagonal) then view the monitor from 110 inches back to se what it will look like when projected in a typical meeting room).
- DO check for spelling and other errors.
- DO use block fonts such as Helvetica or Arial and **bold for easier reading.**
- DO use a dark background color with a light color lettering.
- DO make sure all similar graphs have same scales when possible.
- DO avoid spurious accuracy, use same decimal places throughout presentation.
- DO use several simple slides rather than a single complicated slide to make your point.
- .

Don't for Making Slides

- DON'T use *script* or fancy type fonts, they may look nice on the computer, but the audience may have difficulty reading them
- DON'T use shadowing, again, they may look nice on the computer, but the audience may have difficulty reading them.
- DON'T try to use all 16,000,000 available colors, a few wisely chosen colors are more effective. Also, remember that up to 10% of the audience will have some degree of color blindness.
- DON'T go overboard with fancy backgrounds. If you include the multiple colors and graphics you may find it difficult to find a contrasting color which allows your text to be easily read.
- DON'T use more than 7 words in width (42 character spaces) or more than 7 lines in height (14 single spaced lines). Follow the 10 times the width of the slide rule.
- DON'T use large tables of numeric information (recommended 6 lines X 5 columns is largest). Actually, several sources say not to use more than 2-3 rows/columns and others say to <u>never</u> use tables.
- DON'T try to put all graphs on single figure slide [recommended 3 graphs (lines) per figure is largest]. Also, don't let the computer design weird scales on your graphs like 10.19, 16.39, 21.57, etc.; override with 10, 15, 20, etc.
- DON'T put something on a slide if you don't plan to refer to it.
- DON'T just copy a drawing or illustration from your manuscript, have it redone for the presentation. Typically it contains too much detail (is in a vertical alignment) and needs redone to be effective in a presentation.

Do's for Giving Powerpoint Presentations

- DO practice your presentation as many times as it takes you to become fluid and under the time limit. No one will ever complain if your presentation is under the time limit but it is common to hear complaints when you run over. Many say a good average is 1 slide per minute. I've had as many as 1.5 slides per minute, but that was pushing the limit. Some societies actually limit the number of slides you can have in a ten minute presentation to 6 slides.
- DO arrive at the room you will be presenting in early to introduce yourself to the moderator and to see how the AV equipment (projectors, mic, video/computer projection, pointer, etc.) works.
- DO contact the conference staff well in advance if you are using a laptop, video or any other nonstandard AV equipment to make sure it will be available.
- DO have someone else review your presentation before you give it at the meeting.
- DO look through your slides after loading them in the carousel to make sure they are right side up and facing correctly.
- DO look at each slide as it appears to make sure you are in synch with the slides. I can't tell you the number of times I've been in the audience when the speaker and slides were out of synch because the speaker was just going full speed ahead and the projector was stuck several slides prior.
- DO use the pointer to point out relevant items on the slides as this keeps the audience in touch with your presentation. This is difficult to do if you are reading a script.
- DO have a clear ending to your presentation (i.e. I thank you for your attention…).

Don'ts for Giving Presentations

- DON'T read your presentation and don't just read the slide. Use the slides as a guide to prompt you through your presentation. Additionally, many podiums don't have enough light to allow you to see any written material to ready
- DON'T go overboard with fancy transitions and effects when making computer presentations. Many times they are distracting and take away from the presentation.
- DON'T use figures with multiple graphs and only talk about a couple of graphs in the figure. If you don't talk about it, don't put it on a slide.
- DON'T use a table and only talk about a few numbers in the table.
- DON'T wander away from the podium unless you have a wireless mic.
- DON'T apologize for the audience not being able to see your slides, (see Do's & Don'ts for making slides).
- DON'T let the light pointer wander around the walls or ceiling (Don't let the pointer zip around, this has been known to cause neck injury in the overly conscientious viewer and could open the Society up for a personal injury suit).
- DON'T combine slides from a previous presentation unless the color scheme, fonts, etc. are the same and figure/table numbers are correct.
- DON'T combine overheads and slides or slides and computer projection in the same presentation.
- DON'T have slides in the presentation if you don't plan to use them. It is very frustrating to listen to a presentation when the presenter clicks through several slides either because time is running out or they now decide they no longer need the information on the slides. Either way, the audience is left wondering if they missed something important and gives the impression that the presenter did not take the time to adequately prepare for the presentation.
- DON'T over do the humor. Sometimes a relevant cartoon can be the best way to get your point across, but irrelevant cartoons, pictures, etc. can distract or offend.
- DON'T assume that everyone else in the audience is an expert in your field. GCMAS is a diverse group and not all MDs, PTs, kinesiologists and engineers know everything about all disciplines. Make it clear so all can understand.
- DON'T talk to the screen or your notes, look up and out to the audience.

Effective Poster Presentations

Abstracts scheduled for presentation in poster sessions will be numbered, listed in the program, and plans are to also publish them In *Gait and Posture* for the 2000 conference.

General:
When planning a poster presentation, it is useful to keep in mind the advantages or a poster over a podium presentation. Posters are available for viewing throughout the meeting and interested viewers have scheduled time for discussion, not just a few minutes. Your poster presentation should be clear, effective, and readable by viewers five feet away. The following guidelines have been prepared to help improve the effectiveness of poster communication.

1. Planning: Plan your poster early. Focus on a few key points with a style of data presentation to achieve darity and simplicity. Does the use of color help? What needs to be expressed in words? Suggest headlines and text topics.

2. Rough Layout: Enlarge your best initial sketch, keeping the dimensions in proportion to the final poster (see diagram). The rough layout should be full size. Print the title and headlines and draw rough graphs and tables to give an idea of proportion and balance.

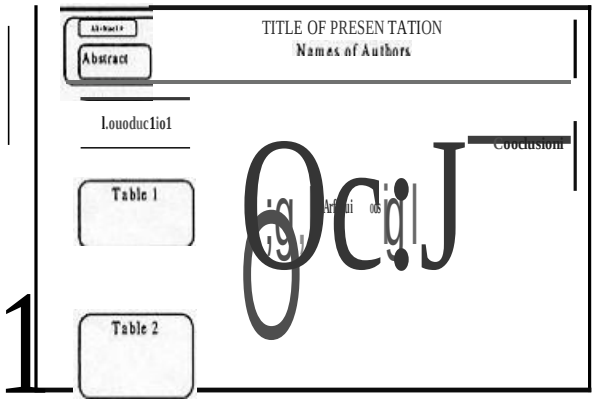
3. Final Layout: When the artwork is complete and text and tables are typed, plan the final layout to ensure that the message is clear. Do the Important points stand out? Is there balance between words and illustrations? Is there spatial balance?

4. Balance: The figures and tables should cover slightly more than 50% of the poster area. If you have only a few illustrations, make them large. Keep text brief. The poster should be understandable without oral explanation.

5. Topography: Avoid abbreviations and jargon. Use a consistent type style throughout. Use large type, such as Orator or Arial. An SW' x 11• sheet of paper photostatically enlarged by 50% makes the text legible from five feet.

6. Eye Movement: The pathway of the eye over the poster should be down the columns. Arrows, pointers, numbers or letters can help to clarify the sequence.

7. Simplicity: Resist the temptation to overload the poster. More material often means less communication.



The poster-board surface area for 2000 Is 48 Inches high and 48 Inches wide.

Prepare a 6 Inch high headline strip that runs the full width of the poster.. Include the mle, authors, and affiliations on the strip in letters not less than 1 inch high. Post a large typed copy of your abstract In the upper left-hand corner & bring your own push pins.

Adapted from Experimental Biology '98, pg 58by Dr. John Holden

Return to GCMAS Home Page

POSTER PRINTING INFORMATION AND ORDER GUIDELINES (GVSU)

Location: GVSU Promotions Office, Location 1108 Kirkoff Center (Office of Student Life)
Contact Person: Alaina Woloszyn 616-331-2340 wolosala@gvsu.edu
For Job Submissions: email upo@gvsu.edu

Service: Banner/Research poster printing
Costs: {Specific to PT Research Day Posters; 42"x 56"; banner printer max is 42" wide}
Glossy paper (recommended quality level) = $52.00 Regular paper (discuss quality/thickness) = $28.00
Design Services: $25.00 per hour, $15.00 each additional hour

Order forms: Need to complete order form to submit poster printing request; available online at http://www.gvsu.edu/promotions/submit-an-order-6.htm
Time from order to final product: Student projects allow 2 weeks
(for faculty can do rush orders in 5 days, pending other projects in process)

Billing: Pay at time of pick-up {note, bring poster tube when picking up to preserve/store poster as these are not available at Kirkoff or in the student bookstore in Allendale.

Format: Save poster as pdf file to preserve formatting and Specify size of poster in your order.

Tips for Enhancing Quality of Poster:

1. Save photos at 300dpi or higher;
2. Insert graphics/figures directly from excel, SPSS or other program to preserve details in high resolution (do not cut/paste);
3. Recommend that you save scanned objects as bmp (not jpeg) for better resolution;
4. Leave a margin of approximate ¾" on all sides;
5. For use of GVSU logo: go to Institutional Marketing home page, search for logo instructions; download the high resolution logos (noted "for printing"). {copyright protected use};
6. View proof of section of poster in 8 ½ x 11 to assess format and quality.

Guidelines for Content of Platform Presentations

College of Health Professions
Grand Valley State University

2. See "Some Do's & Don'ts for a Successful Podium Presentation" in your research handbook for general guidelines. Also see "Critiquing and Preparing a Platform Presentation," an APTA video production located in the CHP Frey library.

3. Your slides should include the following items:

    a. Concise background/review of literature
    b. Statement of problem & purpose statement (hypothesis statement not necessary)
    c. Methodology & data analysis
    d. Results
    e. Concise discussion/conclusion, including clinical relevance
    f. One or two recommendations for future research (not a shopping list)

Notes: A public professional presentation is not an oral defense so you need to be concise and unhurried; in other words, you should not present all of your data but only the most important results. It is not appropriate to present the limitations of your work, but you need to be prepared to answer questions regarding them.

APPENDIX H

DEPARTMENT OF PHYSICAL THERAPY

Forms for use in the Case Report Option

Grand Valley State University
Department of Physical Therapy

Physical Therapy Case Report

Introduction

Although there presently are major initiatives in the Physical Therapy profession to promote and conduct well-controlled bench and clinical research, the need for case report research has also been advocated (McEwen, 2001). According to Jules Rothstein, Editor of *Physical Therapy*,

> The vagaries of patient care are too important to be left to random communications, jargon -laden continuing education courses or accidental dialogues. We should agree and disagree in public and grow through that discourse. We should talk to each other about what we do, and do so using clear language. We should write so that we refine our descriptions, agree on terms and definitions, and evolve a common language of practice. . . That is, we should write case reports (McEwen, 2001)!

Recently, Rothstein proclaimed that there was a need to conduct and submit case reports to *Physical Therapy*. Other well-recognized physical therapy and medical journals, such as *Journal of Orthopedic and Sports Physical Therapy*, *New England Journal of Medicine* and *Spine*, to name a few, routinely include case report research. Thus, it is well accepted that case reports are more than just ‗shop talk,' but are an essential part of the physical therapy and medical literature and they are reviewed with the same scrutiny as experimental research. Case reports do not replace research reports, but complement traditional research, and can provide researchers with the background they need to design future research and clinical trials.

The purposes of this proposal are twofold: 1) to define what we mean by case report research and describe the need for case report research, and 2) outline a specific plan for how graduate physical therapy students will complete case report research (should they elect that option) to satisfy program requirements.

Why perform case reports?

Case reports are not the same as ―case studies‖ or ―single-subject designs,‖ which refer to research methodologies that have procedures and standards of their own. Case reports simply describe practice, but succinctly describe practice in detail and so that readers have a clear understanding of the procedures used. The credibility of case reports is often enhanced by attempting to control, rule out or acknowledge alternative explanations for outcomes, but case reports do not impose the controls required to identify cause-and-effect relationships among variables. Case reports may focus on a single patient or group of patients (most common), or alternatively, on institutions, facilities, education programs or other definable units. The variety of issues examined in case reports may include patient management, ethical dilemmas, use of equipment or devices, or administrative or educational concerns.

Case reports have an important place in the professional physical therapy literature and serve several purposes:

1. Evidence-based medicine (practice) is a phrase heard in all circles of medicine and advocated as the best way to practice in this new century. Evidence-based practice is defined as ―the integration of best research evidence with clinical expertise and patient values . . . When these three elements are integrated, clinicians and patients form a diagnostic and therapeutic alliance which optimizes clinical outcomes and quality of life.‖ (Sackett, Straus, Richardson, et al., 2000). Evidence-based practice uses the best available evidence to make a decision, and case reports are an ideal mechanism for students to learn how to integrate best research evidence, clinical experience, and patient values.

2. Because of the nature of randomized-controlled or cohort research designs day-to-day clinical questions are often left unanswered. In contrast, case reports detail the content that would be necessary for another clinician to implement the approach discussed in the report, or to answer day- to-day clinical questions. Furthermore, reported clinical outcomes for individual patients, which are rarely considered in clinical trials, textbooks, and continuing education courses, are readily available and useful. Case reports published in peer-reviewed journals represent the consensus of the primary author and other clinical experts. Thus, while case reports cannot give definitive answers to clinical questions, they do provide readers access to the reflective experiences and knowledge of experts.

3. In traditional research investigators can only examine a limited number of variables under controlled conditions. In case report research details of the case have the potential to become a variable for future research that could eventually lead to definitive answers to clinical questions. Thus, student and faculty case reports can provide a broad base of descriptive information that can be used by other researchers in future empirical studies.

4. Case reports have been used extensively in professional academic programs, such as business and law, to assist students develop critical-thinking and problem-solving skills. Additionally, the process of writing case reports helps students develop skills in surveying the literature and becoming involved with peer-reviewed processes. Finally, as students write about the patient, examination and intervention procedures and outcomes they are continually refining their scientific writing skills.

5. Theory has been described ―as a body of knowledge that serves as a framework for organizing complex and diverse information.‖ (McEwen, 2001). Good science dictates that theory be continually expanded. Thus, case reports can serve to support theory by providing details to a ―theoretical skeleton.‖ Moreover, theory can be expanded or may be placed in doubt secondary to information from case reports that describe experiences that go beyond current theory or are not consistent with current theory.

6. Finally, information from case reports may be used to persuade clinicians or administrators to re-examine traditional practice patterns or management policies. Although case reports cannot provide definitive answers about treatment effectiveness, case reports can be a springboard for the development of practice guidelines, critical pathways, and other patient management approaches.

Having provided a rationale for case report research what follows will be a description of the protocol that Grand Valley physical therapy students will follow.

Preparation of students

Case report is one of the options open to students to fulfill their graduate requirements (PT 790 and PT 793), therefore not all students will be involved in this activity. Students who elect this option will be required to conduct two (2) case report projects. Prior to the first case report all students will have successfully completed one

four-week full time clinical rotation (middle of 1st professional year). Additionally, they would have successfully completed three research courses: 1) PT 512 (Introduction to Health Professions Research) develops students' skills in scientific writing, reviewing and critiquing clinical research and introduces research design (completed at end of 1st professional year), and 2) PT 610 (Research in the Health Professions) where students have an in-depth study of research design (including case report) and write an abbreviated research proposal (completed in the semester prior to the conduct of their first systematic reviews and case report). Second-year students will collect data for the first case report during a six-week clinical rotation that occurs in the middle of the 2nd professional year. Students will write up this first case to fulfill requirements for PT 790 (completed by end of 2nd professional year). The first case report will provide students with experience in the definition of a clinical question and selection of case, data collection, documentation, review of literature, and refinement of scientific writing skills, thus preparing them for the completion of their second case report. In the first semester of the 3rd professional year, students complete two 9-week full time clinical rotations. During one of these rotations they will collect data for a second case report, which will subsequently be completed in their final academic semester on campus (PT 793).

Guidance for students

Students will be advised of their research options beginning in PT 512 and continuing in PT 610. During participation in PT 610, students who select the case report option will receive guidance by the course faculty, as well as by physical therapy faculty mentor with case report and clinical experience. For both case report projects students will receive advice from their clinical instructor, who will be informed about the projects, the Academic Coordinator for Clinical Education (ACCE) and a specific faculty member with clinical expertise.

Institutions/clinical sites where case report research will be conducted

Care report research will be conducted in affiliated physical therapy clinical sites locally and regionally in the State of Michigan, as well as sites in other regions of the United States. Grand Valley State University has established legal contracts with all affiliation sites. At the appropriate time sites will be informed that a specific student will be completing case report research during 2nd and 3rd-year clinical rotations.
When students arrive at the institution/clinical site they will complete the following before they can begin data collection:

1. Affirm with the clinical instructor (institutional sponsor) their desire to conduct case report research.
2. **Provide the clinical instructor and Academic Coordinator of Clinical Education (ACCE) with a copy of signed assurance form (see student assurance form) pg 99.**
3. Secure affirmation/approval from the department manager, Research Department/Office, and/or other institutional committees (e.g. HRRC), if needed.
4. **Select an appropriate case within two weeks**.
5. Secure approval from the patient's referring physician (see physician approval form) pg 100.
6. **Secure informed consent from the patient and/or parent/guardian** (see informed consent forms pp 103-110).
7. Submit a final report of the project to the Hospital's IRB Board or their Institutional Research Department/Office.

Case report research

With the assistance of their clinical instructor students will be responsible for selecting their case within the first two (2) weeks of the clinical rotation.

Subjects. Subjects will be patients who have been referred for physical therapy services at the clinical site where students are affiliating. They will be patients who are followed by the student and their clinical instructor. Generally, subjects are selected on the basis of the need to report on the specific, and sometimes unique, literature

and evaluation and treatment sequences used for that particular subject. Potential subjects will be asked if they would be willing to participate as a subject for a case report. If the patient agrees verbally, the purpose of case report research will be explained to them and they will be given an opportunity to ask questions and sign informed consent. Students will be allowed access to all information that is necessary to their understanding and development of the case report.

Instruments. Since case reports reflect standard practice in physical therapy the instruments used for physical examination and intervention are tools that are routinely used in clinical practice. Such tools include goniometers, tape measures, reflex hammers, and functional ability physical assessments and questionnaires, to name a few. Students have received instruction and have demonstrated competency for the use of these standard tools. Should students be introduced to new methods of examination and measurement at their clinical site they must demonstrate competency in the use of these instruments prior to their use as part of the case report (responsibility of the clinical instructor). In an effort to have a more complete data set, students may elect to collect follow-up data (via phone questionnaire) after the patient has been discharged.

Routinely, videotapes, photographs or other visual images may be taken as part of data collection and outcome measurement. If it is likely that these materials will be used to illustrate patient presentation and treatment in written or oral presentations, students will follow existing procedures at the institution/clinical site for obtaining consent for the collection, use, or reproduction of this data. In addition, there is a section in the consent form where the patient and/or parent/guardian can indicate willingness (or unwillingness) for photographic or videotape data to be used in case presentations or publications.

Treatment procedures. Frequency and duration of treatment procedures will vary from patient to patient, as in routine clinical care, depending on the nature of the clinical problem. Patients involved in case report research will not receive special or experimental treatments, nor will care be withheld as part of some type of control. All procedures will follow standard physical therapy practice.

Any adverse effects from routine physical therapy intervention will be managed according to standard practice procedures or as dictated by clinical site policies and procedures. For example, consultation with, or referral to, the referring physician or other health care practitioner may be necessary to initiate new therapies or modify present therapies, dependent on patient response to intervention. Likewise, incident reports acknowledging u n u s u a l events, e.g., patient fall during therapy, will be completed as dictated by clinical site procedures.

Benefits

Since standard physical therapy care is being provided for the patient, benefits are those associated with full participation in the physical therapy program. Benefits will also be gained by the professional community should case report research experiences and results be presented at local, regional or national meetings, or be published. Future patients with similar problems may benefit if case report research results in critical evaluation and change in practice patterns.

Risks.

The only risks are those associated with participation in the physical therapy program, which are minimal since standard physical therapy practice will be provided. No experimental examination or treatment procedures will be given to patients.

Confidentiality

Raw data from physical examination or medical records will be shared only with the student‘s clinical instructor or supervising physical therapist or other health care professionals associated with the patient in the clinical setting

(those who would normally have access to these data). All patient information will be kept confidential in any written manuscripts or oral presentation of the case report. In such reports, name or any other identifier that could be directly linked to the subject will not identify patients. The institution/clinical site name and geographic location where the patient was seen will also not be identified. The student's academic faculty sponsor will be responsible for maintaining a file of the record following completion of the case report project.

Student assurance

Student investigators will complete and sign an assurance form (see student assurance form) that will be submitted to GVSU's ACCE (with copy to institution/clinical site clinical instructor). This form provides assurances that the student understands and agrees to abide by the terms and procedures of this HRRC proposal.

Informed consent

After an appropriate patient for the case report is identified, he/she will be asked if they would be willing to be the subject of a clinical case report. The patient will be provided with a consent form that will be reviewed with them. If the patient consents to be the subject of a case report, they will be asked to sign the consent form. The patient will be given a copy of their signed informed consent.

If the patient is a minor (> 7 years), assent and consent will be sought from the patient and the parent and/or guardian, respectively; if the patient is less than 7 years only parental/legal guardian consent will be sought. In age appropriate language the purpose of the case report will be explained to the minor, as well as to the parent and/or legal guardian; the student researcher may read the assent/consent form to the child and/or parent/guardian. Should a minor or adult patient be unable to give informed consent for cognitive reasons only the parent/legal guardian informed consent will be signed. Copies of signed informed consent will be provided to the minor and the parent and/or legal guardian.

The original signed assent and consent forms will be filed in the patient's medical record. Copies of all signed records (assurance, physician approval, assent and consent forms) will be filed with the institutional Research Department/Office prior to the initiation of the project.

References

1. McEwen, I. R. (Ed.). (2009). *Writing Case Reports, A How-To Manual for Clinicians* (3rd edition), American Physical Therapy Association: Alexandria, VA.

2. Sackett, D.L., Staus, S. E., Richardson, W. S., et al. (2000). *Evidence-Based Medicine, How to Practice and Teach EBM* (2nd edition), Churchill Livingstone: Edinburgh.

3. Portney, L. G. and Watkins, M. P. (2000). *Foundations of Clinical Research, Applications to Practice* (2nd edition), Prentice Hall Health: Upper Saddle River, NJ.

4. Mostrom, E. (1995). *Proposal, Physical Therapy Case Reports*, Graduate Program in Physical Therapy, Central Michigan University: Mount Pleasant, MI.

CASE REPORT
ESSENTIAL COMPONENTS & GUIDELINES FOR WRITING

Introduction

Provide background on the topic of case
State why it is important & how it will add to body of literature
Cite the literature supporting management of case
Provide theory for framework for the case
Clearly state purpose & focus of the case

Case Description

Provide organized information on the case (patient/client/situation)
    Use models to present case (such as Disablement Model or Patient/client management model)
    Provide chronology or time-frame for patient condition, sign/symptoms
Explain why you chose this case
Discuss focused examination findings and clinical reasoning for the tests
    Support tests with operational definitions, reliability and validity when available
Generate hypothesis regarding cause/underlying problem based on findings
    Reflect clinical decision-making
Provide evaluation, prognosis and plan of care for case
    Support with references when available
Use figures and/or tables to supplement presentation of examination findings

Intervention

Describe intervention with rationale for its selection
Provide references supporting selected interventions
Discuss frequency, intensity, duration and how intervention applied (replicable)
Discuss patient participation (adherence) with intervention or HEP
    Explain clinical decision-making regarding progression of intervention or modification of selected intervention
    Use Table and/or figures to present intervention and progression

Outcomes

Provide objective data on patient status post intervention
Provide chronology or time frame for outcomes and any follow-up measures
    Link measurements impairment, functional limitations and disability
    Relate outcomes to goals set and expected outcomes
    Related outcomes to purpose of case
    Use tables and/or graphs to summarize outcomes

Discussion

Link case to purpose and relate to literature/evidence reviewed
Discuss theoretical basis for clinical decisions and case management
Reflect on interventions and outcomes
Discuss possible explanations for outcomes and factors that may have influenced outcomes
Discuss positive and negative aspects of case management
What was learned from the case and how will it add to the literature?
Pose research questions and suggestions for future research based on this case

References:

McEwan I: *Writing Case Reports*, 3rd ed. American Physical Therapy Association, 2009 Alexandria, VA

Childs JD: *Case Reports: Can We Improve?* J Orthop Sports Physical Therapy 2004; 34: 44-46

GRAND VALLEY STATE UNIVERSITY

Department of Physical Therapy

Assurance Form
for Students Completing
Physical Therapy Case Reports

Student's Name: _____

Title of Case Report: _____

_____

I have read, understand and agree to the terms and procedures for preparing clinical case reports, as described in the Grand Valley State University HRRC proposal "Physical Therapy Case Reports."

I assure that the diagnostic and intervention procedures used and reported in this case report are considered standard of care (are not experimental) clinical procedures provided under the direction of my clinical instructor. Patient interventions will not be altered in connection with the decision to write the case report. I assure that all information will be kept confidential, as described in patient participation consent form.

Student's Signature: _____

Date: _____

Academic Coordinator Clinical Education Signature: _____

GRAND VALLEY STATE UNIVERSITY

Department of Physical Therapy

Physician Approval Form
for Students Completing
Physical Therapy Case Reports

Student's Name: _____

Clinical Instructor's Name: _____

Title of Case Report: _____

_____

I understand that this form is a request for approval for a student physical therapist to design and conduct case report research on the following patient:

Patient's Name: _____

I understand that the diagnostic and intervention procedures used and reported in this case report are considered standard of care (are not experimental) clinical procedures provided under the guidance/direction of a licensed physical therapist (student's clinical instructor). Patient interventions will not be altered in connection with the decision to write the case report. I understand that all information will be kept confidential, as described in the patient participation consent form that has been approved by Grand Valley State University HRRC.

My signature verifies that I am aware and support the involvement of my patient in this case report research.

Physician's Signature: _____

Date: _____

Grand Valley State University

Department of Physical Therapy

Procedures to Initiate Case Report

When students arrive at the institution/clinical site they will complete the following procedure before they can begin data collection:

1. Affirm with the clinical instructor (institutional sponsor) their desire to conduct case report research.
2. Provide the clinical instructor with a copy of the signed assurance form.
3. Secure affirmation/approval from the department manager, Research Department/Office, and/or other institutional committees (e.g., HRRC), if needed.
4. Select an appropriate case within two weeks.
5. Secure approval from the patient's referring physician (see physician approval form).
6. Secure signed patient informed consent (using forms approved by GVSU HRRC).
7. Submit appropriate forms for the case report project to the Hospital's IRB or their Research Department/Office.
8. Submit a final report of the case report written manuscript to the hospital/clinic where case was completed and to their IRB board.

Note: Securing formal informed consent from parents may not be required at some institutions, e.g., Mary Free Bed and Spectrum Health.

Guidelines for Clinical Instructors (CI) Supervising Case Report Research

You are encouraged to read ―Physical Therapy Case Report Research.‖ This document defines case report research, GVSU student preparation and important information regarding informed consent. In addition to this information we encourage you to consider the following suggestions as you anticipate working with a GVSU PT student on case report research. If you want to learn more about case report research you might consider obtaining an APTA publication titled, *Writing Case Reports* (2nd edition), by Irene McEwen.

Case report research is one of the research options for GVSU PT students and, as such, will be an extensive, well-researched clinical study. One objective of this type of research is to give the student (and illustrate to the CI) experience in one application of evidence-based practice. Many students and clinicians perceive clinical research as onerous, but we believe that case report research does not have to be and hope that your experience with our students will prove that to be true. You will have some influence on what case may be selected so this case report research can be also be used by you to investigate an area of interest, e.g., a particular treatment technique or use of a particular outcome measurement.

Clinical instructors will serve as primary content experts during case report research. Therefore, patient selection is critical to the success of this project. You should consider your area of specialization, special equipment and techniques that are available, your area(s) of interest, as well the student's prior experiences and interests. **Patient (case) selection needs to occur within the first two weeks of the student's rotation.** The CI can facilitate the selection process by arranging their schedule to include patients with a diagnosis that the student and/or CI can relate to. Alternatively, the CI might consider taking over evaluation and management of an ―ideal‖ patient from another therapist. In any event, making patient selection a priority is important so that the CI might delay some of the more routine orientation events, i.e., department policies, etc.

The clinical instructor is the primary mentor during case selection and the evaluation and treatment stages. The CI needs to assist students in clinical decision-making that include examination and evaluation (performing and interpreting tests and measures accurately and reliably), selection of appropriate pre- and post-intervention tests, and selection of appropriate interventions and treatment progressions. Finally, the CI can assist students in further assessment of patients by providing information on status at discharge (should student leave site before the patient is discharged) or changes in status (students will be encourage to conduct a 1-month post- discharge follow-up).

We will encourage the CI and department staff to take advantage of case report research by having students do one or all of the following: present their literature review of the case they are working on as an in-service, present the case report research as an in-service in its entirety, or have the participating CI collaborate with the student and submit the case report for publication.

GRAND VALLEY STATE UNIVERSITY

Department of Physical Therapy

Minor Patient Assent for Participation
As a Subject in a
Clinical Case Report

Investigator's Name: _____
(Student Physical Therapist)

Name of Supervising Therapist: _____
(Clinical Instructor)

Purpose. The purpose of case reports is to document and share information with health care practitioners about the examination, evaluation, diagnosis, treatment and prognosis of a variety of patients seen in clinical practice. Case reports add to the body of knowledge in the medical field, contribute to the development of practice theory and lay the groundwork for large-scale research endeavors. As part of the Doctorate program in Physical Therapy at Grand Valley State University I am required to participate in case report research that includes reporting about a patient, their unique clinical presentation, their course of treatment in physical therapy and the outcomes of their therapy program. Therefore, you are being invited to be the subject of a clinical case report.

Procedures. If you consent to be a participant you will be given a physical examination that will Program in include a series of appropriate tests and measures. Your examination data will be evaluated and your treatment program will be designed based on a physical therapy diagnosis, and related prognosis. Your physical therapy treatment will follow standard clinical practice guidelines. Since I am a graduate student in physical therapy, my Clinical Instructor will supervise all examination and treatment procedures. No procedures or treatments will be performed that are experimental or not part of regular physical therapy practice. Your course of care in physical therapy will be carefully documented so that that information can be shared with others. Additional data in your medical records that are relevant will be collected and reviewed. At no time will your medical record and other raw data be released to the public or anyone not involved with you medical or rehabilitation care at the clinic/facility in which you are being seen. You will not receive compensation for your participation in this project.

Timetable. Your time commitment for participating in this case report will be the same as it would be for receiving standard physical therapy care for your condition.

_____ Signer's Initials

Risks and Benefits. Risks associated with participation as a subject in a case report is the same as they would be for receiving standard care for your condition. A benefit from the dissemination of information about your case could be that other physical therapists and health care practitioners might gain knowledge about your condition and clinical presentation, your course of treatment and the outcomes of that treatment. Such knowledge may benefit other patients with conditions like yours that are being treated by physical therapists.

Confidentiality. Any information obtained which could identify you will be kept strictly confidential. All written reports and oral presentations generated based on your case will use pseudonyms or other identifiers (e.g., numbers) and will not identify the location or name of the clinical facility in which you received your care.

In some cases, photographic, videotape or audiotape data may be used in written or oral presentations of case reports. Please indicate if you are willing to have such data presented publicly by initialing below:

Subject's Initials: _____

Right to Refuse. You may refuse to participate and still receive the care you would receive if you were not a subject in this case report.

Questions. If you have any questions at this time, please ask them. If you have additional questions later, I will be happy to answer them. I can be reached at:

Investigator's Name: _____
Address: _____
Phone Number(s): _____

If you have any questions about human subject's rights, you can phone_____, Chair of the Human Subjects Review Board at Grand Valley State University at (616) 331-2281.

You and your parents/legal guardian will be given a signed and dated copy of this form to keep. Your signature below indicates that you have voluntarily agreed to be a subject of a clinical case report and that you have read and understood the information provided above.

_____

Subject's Signature Date

_____

Subject's Printed Name

_____

Parent/Legal Guardian Signature Date

Investigator's assurance statement and signature: In my judgment, the subject is voluntarily and knowingly giving informed consent to be a subject in this clinical case report.

_____

Investigator's Signature **Date**

_____ Signer's Initials

GRAND VALLEY STATE UNIVERSITY

Department of Physical Therapy

Child's Assent for Participation
As a Subject in a
Clinical Case Report

Investigator's Name:_____
(Student Physical Therapist)

Name of Supervising Therapist: _____
(Clinical Instructor)

What is case report research?

Case report research is something like a science project you might do in school. The people running the study want to learn something new. So they see what happens to people (like you) when they do things that are part of the study. When the study is over, they will write a paper about what happened.

What if I don't want to be in the research study?

You do not have to be in the study if you do not want to be. If you do not want to be in the study, even if you said you would, you do not have to be in it. So, you can change your mind anytime you want to.

What do I have to do in the research study?

The people in charge of the study must tell you what will happen to you during the study. You can ask questions about what you have to do and they will be answered.

I have been told what this research study is about and what may happen while I am taking part in this research project.

I know I may ask questions at any time and get them answered.

_____ Signer's Initials

No one has told me I have to take part in this study if I do not want to. I want to be in this research study.

_____
Printed Name of Child

_____ _____
Child‘s Signature (printing is OK) Date

_____ _____
Witness’ Signature Date

_____ _____
Investigator‘s Signature Date

_____ Signer‘s Initials

GRAND VALLEY STATE UNIVERSITY

Department of Physical Therapy

Parental/Guardian Consent for Participation Of a Minor as a Subject in a Clinical Case Report

Investigator's Name: _____
(Student Physical Therapist)

Name of Supervising Therapist: _____
(Clinical Instructor)

Purpose. The purpose of case reports is to document and share information with health care practitioners about the examination, evaluation, diagnosis, treatment and prognosis of a variety of patients seen in clinical practice. Case reports add to the body of knowledge in the medical field, contribute to the development of practice theory and lay the groundwork for large-scale research endeavors. As part of the Doctorate program in Physical Therapy at Grand Valley State University I am required to participate in case report research that includes reporting about a patient, their unique clinical presentation, their course of treatment in physical therapy and the outcomes of their therapy program. Therefore, your son/daughter/minor child is being invited to be the subject of a clinical case report.

Procedures. If you consent for your son/daughter/minor child to be a participant they will be given a physical examination that will include a series of appropriate tests and measures. Their examination data will be evaluated and their treatment program will be designed based on a physical therapy diagnosis, and related prognosis. Their physical therapy treatment will follow standard clinical practice guidelines. Since I am a graduate student in physical therapy, my Clinical Instructor will supervise all examination and treatment procedures. No procedures or treatments will be performed that are experimental or not part of regular physical therapy practice. The course of care in physical therapy will be carefully documented so that that information can be shared with others. Additional data from medical records that are relevant will be collected and reviewed. At no time will the medical record and other raw data be released to the public or anyone not involved with your minor child's medical or rehabilitation care at the clinic/facility in which they are being seen. You will not receive compensation.

Timetable. The time commitment for your son's/daughter's/child's participation in this case report will be the same as it would be for receiving standard physical therapy care for their condition.

_____ Signer's Initials

Risks and Benefits. Risks associated with participation as a subject in a case report is the same as they would be for receiving standard care for your son's/daughter's/minor child's condition. A benefit from the dissemination of information about this case could be that other physical therapists and health care practitioners might gain knowledge about this condition and clinical presentation, course of treatment and the outcomes of that treatment. Such knowledge may benefit other patients with conditions like your

son‘s/daughter‘s/minor child‘s that are being treated by physical therapists.

Confidentiality. Any information obtained which could identify your son/daughter/minor child will be kept strictly confidential. All written reports and oral presentations generated based on this case will use pseudonyms or other identifiers (e.g., numbers) and will not identify the location or name of the clinical facility in which your son/daughter/minor child received their care.

In some cases, photographic, videotape or audiotape data may be used in written or oral presentations of case reports. Please indicate if you are willing to have such data presented publicly by initialing below:

Subject’s Initials: _____

Right to Refuse. You may refuse to consent for your son/daughter/minor child to participate and still receive the care they would receive if they were not a subject in this case report.

Questions. If you have any questions at this time, please ask them. If you have additional questions later, I will be happy to answer them. I can be reached at:

Investigator’s Name: _____
Address: _____
Phone Number(s): _____

If you have any questions about human subject‘s rights, you can phone, Chair of the Human Subjects Review Board at Grand Valley State University at (616) 331-2281.
You will be given a signed and dated copy of this form to keep. Your signature below indicates that you have voluntarily agreed for your son/daughter/minor child to be a subject of a clinical case report and that you have read and understood the information provided above.

Parent/Guardian Signature **Date**

Parent/Guardian Printed Name **Date**

Investigator‘s assurance statement and signature: In my judgment, the parent/guardian is voluntarily and knowingly giving informed consent for their son/daughter/minor child to be a subject in this clinical case report.

Investigator’s Signature **Date**

Signer’s Initials _____

GRAND VALLEY STATE UNIVERSITY

Department of Physical Therapy

Patient Consent for Participation
As a Subject in a
Clinical Case Report

Investigator's Name: _____
(Student Physical Therapist)

Name of Supervising Therapist: _____
(Clinical Instructor)

Purpose. The purpose of case reports is to document and share information with health care practitioners about the examination, evaluation, diagnosis, treatment and prognosis of a variety of patients seen in clinical practice. Case reports add to the body of knowledge in the medical field, contribute to the development of practice theory and lay the groundwork for large-scale research endeavors. As part of the Doctorate program in Physical Therapy at Grand Valley State University I am required to participate in case report research that includes reporting about a patient, their unique clinical presentation, their course of treatment in physical therapy and the outcomes of their therapy program. Therefore, you are being invited to be the subject of a clinical case report.

Procedures. If you consent to be a participant you will be given a physical examination that will include a series of appropriate tests and measures. Your examination data will be evaluated and your treatment program will be designed based on a physical therapy diagnosis, and related prognosis. Your physical therapy treatment will follow standard clinical practice guidelines. Since I am a graduate student in physical therapy, my Clinical Instructor will supervise all examination and treatment procedures. No procedures or treatments will be performed that are experimental or not part of regular physical therapy practice. Your course of care in physical therapy will be carefully documented so that that information can be shared with others. Additional data in your medical records that are relevant will be collected and reviewed. At no time will your medical record and other raw data be released to the public or anyone not involved with you medical or rehabilitation care at the clinic/facility in which you are being seen. You will not receive compensation.

Timetable. Your time commitment for participating in this case report will be the same as it would be for receiving standard physical therapy care for your condition.

_____Program in_____Signer's Initials

Risks and Benefits. Risks associated with participation as a subject in a case report is the same as they would be for receiving standard care for your condition. A benefit from the dissemination of information about your case could be that other physical therapists and health care practitioners might gain knowledge about your condition and clinical presentation, your course of treatment and the outcomes of that treatment. Such knowledge may benefit other patients with conditions like yours that are being treated by physical therapists.

Confidentiality. Any information obtained which could identify you will be kept strictly confidential. All written reports and oral presentations generated based on your case will use pseudonyms or other identifiers (e.g., numbers) and will not identify the location or name of the clinical facility in which you received your care.

In some cases, photographic, videotape or audiotape data may be used in written or oral presentations of case reports. Please indicate if you are willing to have such data presented publicly by initialing below:

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Questions. If you have any questions at this time, please ask them. If you have additional questions later, I will be happy to answer them. I can be reached at:

Investigator's Name: _____
Address: _____
Phone Number(s): _____

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You will be given a signed and dated copy of this form to keep. Your signature below indicates that you have voluntarily agreed to be a subject of a clinical case report and that you have read and understood the information provided above.

_____

Subject's Signature **Date**

_____

Subject's Printed Name

Investigator's assurance statement and signature: In my judgment, the subject is voluntarily and knowingly giving informed consent to be a subject in this clinical case report.

_____

Investigator's Signature **Date**

_____ Signer's Initials

GRAND VALLEY STATE UNIVERSITY

College of Health Professions

Department of Physical Therapy

Patient Demonstration Release Form

I,_____, voluntarily consent to participate for ―patient demonstration‖ educational purposes for the Physical Therapy program at Grand Valley State University. Additionally, I give permission to Grand Valley State University Physical Therapy Program (circle one):

_____ 1. To utilize photographs, films, videos or audio-taped segments of self for educational purposes

_____ 2. To copy or reproduce the following material(s) for educational purposes by faculty and/or students within said institution:

_____

_____

_____

Printed Name: _____ Date: _____

Signature: _____

Institution/Agency: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Witness Signature/Date: _____

APPENDIX I

PHYSICAL THERAPY PROGRAM
Information on the Systematic Review Option

SYSTEMATIC REVIEW: ESSENTIAL COMPONENTS & GUIDELINES FOR WRITING

Introduction

Provides focused overview of the conceptual framework of the topic and its relevance to practice
Supports the need for a systematic review (conflicting results in the literature, no previous review, deficiencies in prior review)
Clearly states specific research question

Methods

States search terms and databases searched

States inclusion and exclusion criteria and relates them to the conceptual framework
Describes method for evaluating level of evidence and methodological rigor

Results

States results of search, and provides number and description of studies included and excluded (including reason for exclusion)
Succinctly summarizes included studies with regard to level of evidence and methodological rigor
Accurately summarizes findings of review with regard to the research question
Uses tables and figures effectively to assist with presentation of results of level of evidence, rigor, or summary of included studies
Information from each study should include:

- Author and year of publication
- Description of included subjects (age, diagnosis (es), disease severity, relevant baseline characteristics)
- Means and standard deviations of outcome measures

Discussion

Provides interpretation and level of confidence in results with respect to the research question, including:

- Analysis and interpretation of included studies with conflicting results
- Comparison and interpretation of present review with previous reviews (if applicable)
- Impact of level of evidence and rigor on confidence of results
- Provides insight (citing relevant research) about the state of the current published research on the topic

States limitation of the review and its methodology
Provides specific recommendations for clinical practice
Provides specific recommendations for future research
Provides succinct and accurate conclusions of the review‘s results and clinical implications

APPENDIX J

COLLEGE OF HEALTH PROFESSIONS

Evaluation of Faculty Research Mentor

GVSU
College of Health Professions

Evaluation of Research Mentor
(adapted from work by C. Grapczyinski)

Use the following scale to rate your major research advisor/mentor in three major categories listed below. **Use the "comments" section to substantiate/support your ratings.**

SCALE:	5	Strongly agree
	4	Agree
	3	Neither agree or disagree
	2	Disagree
	1	Strongly disagree
	N/A	Not applicable

KNOWLEDGE

____ Provided clear and accurate information about project or thesis requirements
____ Provided guidance for the student through the research process
____ Demonstrated content knowledge
____ Demonstrated knowledge in research design
____ Demonstrated knowledge in scientific writing
____ Demonstrated knowledge in quantitative or qualitative data analysis

Comments:_____

_____

_____

_____

PROFESSIONALISM

____ Demonstrated respect for students' ideas about the research project/thesis
____ Responded to requests in a timely manner
____ Provided feedback that was useful for enhancing the quality of students' work
____ Demonstrated an attitude of collaboration and/or facilitated collaboration among group members
____ Exhibited appropriate use of time during research advisement
____ Demonstrated professional communication skills in meetings with students
____ Required high standards for writing and scholarship
____ Presented self as role model of a researcher in the field.

Comments: _____

_____

_____

_____

COMMITMENT TO STUDENT PROJECT/THESIS

____ Arranged time for student meetings appropriately when needed
____ Provided critical questioning to help enhance the logic, accuracy, relevance, depth, breadth, precision and clarify of student's work (universal standards)
____ Offered suggestions and recommendations to encourage high quality work
____ Provided additional support or assistance, when requested, to ensure completion of the work (manuscript writing; data collection and analysis) in the timeliest manner
____ Provided resources or recommendations for resources if needed
____ Provided mentoring and clear expectations for research proposal and final defense
____ Provided feedback on the results of defense in a timely manner
____ If and when presentation of the project or thesis occurs, he/she provided review and feedback.
____ Discussed project with regard to authorship and possibility of publication

Comments: _____

_____

_____

Overall rating and any additional comments: _____

_____

_____

_____

Title of Research Project/Systematic Review/Case Report: _____

_____

_____

Faculty mentor: _____ **Year of Graduation:** _____

Research Evaluation Overall Mean Score = _____

APPENDIX K

Department of Physical Therapy Sample Preliminary Pages Written Manuscript

TRAINING FOR TRUST IN PUTTING PERFORMANCE OF SKILLED GOLFERS: A RANDOMIZED CONTROLLED TRIAL

By

Matthew T. Hoffman
Travis R. Jager
Erika J.S. VanEngen

DOCTOR OF PHYSICAL THERAPY RESEARCH PROJECT

Submitted to the Physical Therapy Program
Grand Valley State University
Grand Rapids, Michigan
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHYSICAL THERAPY

2007

FACULTY RESEARCH MENTOR/S' APPROVAL

Faculty mentor: John Stevenson, PT, PhD, CEA Date

Faculty Collaborator: Mary Green, PT, JD Date

Faculty Collaborator: Paul Stephenson, PhD Date

INTERPRETING MEANINGFUL CHANGE IN THE SIX-MINUTE WALK TEST IN PATIENTS WITH HEART FAILURE: A SYSTEMATIC REVIEW

By

Jennifer L. Kluting
Kacey L. Scheurer

DOCTOR OF PHYSICAL THERAPY SYSTEMATIC REVIEW

Submitted to the Physical Therapy Program
Grand Valley State University
Grand Rapids, Michigan
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHYSICAL THERAPY

2009

FACULTY RESEARCH MENTOR APPROVAL

Faculty Mentor: Michael J. Shoemaker, PT, DPT, GCS Date

TITLE HERE

By

Student Name

DOCTOR OF PHYSICAL THERAPY
CLINICAL CASE REPORT

Submitted to the Physical Therapy Program
Grand Valley State University
Grand Rapids, Michigan
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHYSICAL THERAPY

2009

FACULTY RESEARCH MENTOR APPROVAL

_____

Faculty Mentor: Date

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ABBREVIATION LIST

PD: Parkinson's Disease
QOL: Quality of Life
TT: Treadmill Training
RAC: Rhythmic Auditory Cued
SDTT: Speed Dependent Treadmill Training
10 MWT: 10 Meter Walk Test
DGI: Dynamic Gait Index
BBS: Berg Balance Scale
PDQ-39: Parkinson's Disease Questionnaire
6MWT: 6 Minute Walk Test
PAWM: Parkinson's Association of West Michigan
SLUMS: Saint Louis University Mental Screen
H & Y: Hoehn and Yahr Scale
CGS: Comfortable Gait Speed
HR: Heart Rate
BP: Blood Pressure
RPE: Rate of Perceived Exertion
FGA- Functional Gait Assessment
ABC-16: Activities-specific Balance Confidence Scale

ABBREVIATION LIST

PD: Parkinson's Disease
QOL: Quality of Life
RAC: Rhythmic Auditory Cued
SDTT: Speed Dependent Treadmill Training
10 MWT: 10 Meter Walk Test
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PDQ-39: Parkinson's Disease Questionnaire
6MWT: 6 Minute Walk Test
SLUMS: Saint Louis University Mental Screen
H & Y: Hoehn and Yahr Scale
HR: Heart Rate
BP: Blood Pressure
RPE: Rate of Perceived Exertion
FGA- Functional Gait Assessment
ABC-16: Activities-specific Balance Confidence Scale
RST: Rapid Step Up Test
UPDRS: Unified Parkinson's Disease Rating Scale
LOS: Limits of Stability
MCT: Motor Control Test
SOT: Sensory Organization Test
FOG-Q: Freezing of Gait Questionnaire
MCD: Mild Neurocognitive Disorder
MDC: minimal detectable change
EPE: End Point Excursion

ACKNOWLEDGEMENTS

Thank you to Judy Overmyer, PT and Shana Holda, DPT and Hauenstein Neuroscience Center at Saint Mary's Health Care for their dedication and participation in the study; as well as Paul Stephenson, PhD for his statistical expertise. A special thank you to faculty advisors Cathy Harro, PT, MS, NCS and Michael Shoemaker, PT, DPT, PhD, GCS for all of their guidance, expertise, and dedication to the study.

APPENDIX L

Michigan Physical Therapy Association
Abstract Guidelines

Excerpt from: CALL FOR RESEARCH ABSTRACTS FOR THE 2015 ANNUAL MPTA CONFERENCE

All abstracts must be typewritten, single-spaced with one inch margins, a 12-point font (Times Roman)
Do not center the title
Limit the abstract to one page (8.5 x 11 inches). If graphs or charts are included with the abstract all must fit within the margins.
The content of the **Research Abstract** must follow the form and sequence outlined below (see Case Report Abstract format further below**):

> **TITLE OF STUDY IN BOLD AND CAPITAL LETTERS**.
> Author 1 (last name, initials), author 2, author 3, etc; Facility/University, City, State, leave a line as space. Underline the name of the one author who will present the poster or platform. Do not include titles or degrees.
> Immediately after the author name(s), place a semicolon, and then type in the name of the facility or university in which the work being reported was conducted, and the city and state where the facility or university is located. Leave one blank line between this identifying information and the text of your abstract.
>
> **INTRODUCTION/CLINICAL RELEVANCE**: Introductory sentence(s) of why this research question is important for clinical practice followed by an explicit purpose or hypothesis statement. **METHODS:** Specify research design. Subjects: Describe the number and relevant characteristics of sample. Methods/Procedures: including instruments used in data collection. Statistical Analysis: statistical tests used and alpha level. **RESULTS:** Briefly summarize the results that relate to the purpose(s) of the study. **DISCUSSION:** Briefly discuss the results that relate to the purpose(s) of the study. **CONCLUSIONS:** Summarize important results and state the conclusions from your results indicating the clinical relevance of the findings.
> **ACKNOWLEDGMENTS.**

****Case Report abstract format**:

> **TITLE OF STUDY IN BOLD AND CAPITAL LETTERS**.
> Author 1 (last name, initials), author 2, author 3, etc; Facility/University, City, State, leave a line as space. Underline the name of the one author who will present the poster. Do not include titles or degrees.
> Immediately after the author name(s), place a semicolon, and then type in the name of the facility or university in which the work being reported was conducted, and the city and state where the facility or university is located. Leave one blank line between this identifying information and the text of your abstract.
>
> **BACKGROUND AND PURPOSE:** Introductory sentence(s) of why this research question is important for clinical practice followed by an explicit purpose. **CASE DESCRIPTION**: Brief patient history and systems review, examination, clinical impression, approach/intervention. **OUTCOMES**. **DISCUSSION.**
> **ACKNOWLEDGEMENTS.**