Assessment Activity Report Due April 22, 2019
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Closing the Loop Annual Assessment Report

Department __Physical Therapy__________ College ___HSS________________________

Degree Program __DPT____________________

Use of Assessment for Program Improvement and Planning, or, Closing the Loop Rubric – developed and used by the University Academic Assessment Advisory Committee (UAAAC) to provide feedback to programs about their use of assessment findings to improve their programs.

The quality of a program's assessment is determined by its usefulness and application. While assessment should reveal a program's strengths, it is equally (and perhaps even more) valuable if it can help programs identify, reflect on, and address areas where continued development and improvement are needed.

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1. Please list the program learning goal that was assessed in your assessment findings report or other assessment activity.

The Graduate Program in Physical Therapy resides jointly in the University of California San Francisco/ San Francisco State University. Assessment activities thus occur for both universities in addition to accreditation by the Commission on Accreditation for Physical Therapy Education (CAPTE). This year, the program (including all learning goals and activities) is undergoing a self-study and external reviewer site visit for the UCSF Graduate Council Review. The last Graduate Council Review was in 2010. The intent of this SFSU Assessment Report is to highlight one aspect of the required components for the upcoming site review:

*Summarize the recommendations made by the external reviewers in the previous program review, and describe whether and how the program has addressed these recommendations.*

The program learning goals this SFSU assessment focuses on include:

*Students will participate in scientific inquiry during their studies at UCSF/SFSU.*

*Students will contribute to the body of knowledge in physical therapy.*

2. What was the finding of that assessment?

Recommendations made by the external reviewers in 2010 included the following:

- Reduce the courses required in the research thread. Current required
biostatistics course can become a prerequisite and research design course [may be integrated] with other content.

- Decrease the requirement for two writing assignments. Decrease the quality of the final product and shift the emphasis in the curriculum to professional rather than scientific writing in the curriculum. Professional writing includes clinical documentation, writing letters of medical necessity, development of brochures, etc.

Our response to the reviewers at the time included the following:

Comment: We assume that the committee did not truly intend for us to “decrease the quality of the final product”, but rather to lighten the load on both students and faculty members, perhaps by shifting the Program emphasis from scientific writing to professional writing. The committee suggested modifications in research activities to free up time for practice of manual skills and treatment progression (needs identified by students), and the faculty are amenable to this suggestion, with the caveat that the strengths of the Program be maintained. The faculty members believe that one of the current strengths is the depth of training in clinical research. Though an introductory statistics course is one of the prerequisites for the entry-level DPT degree, the students’ ability to apply statistical knowledge is limited. In the second-year PT 251 Research Design course the students first learn the pros and cons of different study designs and begin to analyze the literature, judging the quality of evidence for physical therapy and medical interventions. The content from the PT 251 course is reprised and applied in the students’ clinical courses and rotations. The second-year Biostat 135 Biostatistics course, taught by a faculty member in the School of Medicine, provides a review of parametric and non-parametric methods, as well as demonstrations of applicability in clinical research. Learned principles are further applied in the PT 209/910 Evidence Based Practice course in which students develop clinical questions in their areas of interest. Our Program is unique in physical therapy educational programs in that in our transition from the MS to the DPT we maintained a requirement for hands-on research. In FY 2010, as a requirement for PT 419 Mentored Clinical Research, we offered students the opportunity to participate in ongoing faculty-directed research or to engage actively in a faculty-directed journal club with both basic and clinical/translational components. We were encouraged by the students’ level of participation and learning in these two research experiences.

Action items: We will modify the course requirements for PT 910 Evidence-Based Practice and PT 920 Case Report to require one formal manuscript, rather than one in each course. In addition to the manuscript, students will present the culminating project in oral format in the annual PT Spring Symposium. For the non-culminating project, we will require homework-type assignments and oral presentation of the project in class. We will also make every effort to match students by interest into either research or journal club experiences in PT 419 Mentored Clinical Research. Student participation in research should enhance faculty productivity, as well as facilitate students’ application of research and statistical knowledge. We will continue to encourage and assist students in publication and regional or national presentation of their scholarly work. Lastly, to address the suggestion to increase students’ professional writing, we will identify opportunities for learning within existing courses and clinical rotations. Professional documentation is included already in several of the clinical skills courses. There may be opportunities to add legislative and lay public advocacy and brochure writing in the PT 704 Education and Learning and PT 908 Professional Colloquium courses.

3. What was the process through which faculty considered a response to the findings of the assessment (department meeting, department retreat, through a department assessment or curriculum committee)?
Departmental meetings, bi-annual departmental retreats, and curriculum committee meetings with UCSF and SFSU physical therapy faculty were held to discuss and approve subsequent actions taken to improve the program. Group discussion echoed the comments made in response to the site reviewers. We noted that their concern for student and faculty workload was valid, and we discussed many options for maintaining the high quality of the research component of the DPT curriculum while addressing the concerns raised.

Changes were discussed related to the research thread throughout the DPT curriculum. The research thread included several designated courses (listed below) plus additional assignments in other courses.

PT 251: Research Design
Biostat 135: Statistics course
PT 209/910 (PT 910 is specifically a SFSU course): Evidence-Based Practice
PT 920 (specifically a SFSU course): Case Reports
PT 419: (originally: Mentored Clinical Research)

4. What changes have you made or are you planning to make in order to address the findings?

The following changes were made, many stemming from the action plan above, but several going further.

- We eliminated the manuscript requirement in PT 920 (Case Reports) and retained it in PT 209/910 so that the designated outcomes of the evidence-based practice sequence consisted of the culminating experience with both publication-style manuscript and oral presentation. The requirement continues to meet the DPT learning goals: "Students will participate in scientific inquiry during their studies at UCSF/SFSU." And, "Students will contribute to the body of knowledge in physical therapy." The requirement also ensures that we meet the threshold criteria we established for student learning outcomes in the DPT program:
  - 100% of students will conduct a structured literature review and critically evaluate the evidence.
  - 100% of students pass the culminating experience of evidence-based presentation and paper.
  - 100% of students will disseminate research in a public forum at UCSF or SFSU.

This change cut the work load for both students and faculty. In the last 2 years, we have allowed pairs of students to collaborate on their evidence-based practice culminating experience. This option has resulted in further decrease in faculty work load while capitalizing on peer-editing and communication within pairs to retain high quality of projects. We have observed no reduction in the number of scholarly products that are disseminated regionally or nationally. We retained the oral presentation assignment for PT 920 Case Reports so that students have direct experience/practice preparing and presenting orally prior to the public presentation for PT 209/910.

- We eliminated the requirement for Biostat 135, putting some of that content in PT 251 Research Design with a specific emphasis on common statistics used in PT literature. We have kept PT 251 Research Design in the curriculum to provide students with an understanding of the underlying theoretical concepts that guide the design of clinical research studies. This course includes a unit on ethical conduct of research. Students also complete the Institutional Review Board online ethical training for human subjects research. Students are introduced to the scientific method and to a variety of research methods and designs. Students 1) learn research designs that will be
applicable to their future physical therapy practice, 2) develop a research question and design an appropriate study for that question, and 3) learn to critically appraise and become proficient consumers of research literature.

- We eliminated the mandate that all students must engage in hands-on research within a faculty members' research agenda. We tried a couple of models to provide opportunities for students to engage in hands-on research as an elective. First, we tried a model in which students could choose either hands-on research or a journal club type course (PT 419 evolution). Then, we created a new course sequence in which students were to sign up for 8 hours per week for multiple continuous semesters of research with a faculty member (PT 420 A-D for mentored clinical research; PT 419 evolved into a research journal club format) to increase continuity and support for faculty research. Although this opportunity provided intensive research exposure for students across a couple of cohorts, scheduling issues and student workload ultimately required that we eliminate such a prescriptive option. Currently, students may elect to participate with faculty in research as an independent study course of variable unit value, for one or more continuous semesters.

- We modified PT 419 so that it no longer has mentored research or journal club formats. Instead, it is currently titled Research Seminar and involves overview of a research topic (usually with a guest speaker), lecture, and seminar introducing students to interprofessional and current medical and rehabilitation research from bench to bedside. The course includes topics in regenerative rehabilitation, such as stem cell biology, tissue regeneration, and genetics.

- We have encouraged and assisted students in dissemination of research. A previous SFSU assessment described a debrief session we are now holding annually to discuss a prominent national research conference in PT and the value attendees have received with regard to research and networking.

- Regarding the perceived need for professional writing, we have identified additional opportunities:
  - In pediatric rehabilitation (PT 711), for example, one assignment was added: "based on observation of the video, complete a narrative evaluation, chart, and home exercise program based on the template provided. It is graded by rubric and is 14% of the course grad (25 points out of 175)."
  - In adult neurorehabilitation (PT 710), another assignment asks for a written home exercise program to address balance needs of a particular patient.
  - In professional colloquium (PT 908) a new assignment is planned: students in groups of 10 will be given a legal/ethical topic and divide the work to present a total of 3 papers (750-word article for a CPTA PT interventions publication, written policy/procedure for a fictitious practice setting, and 750-word article on an ethical scenario related to the topic) and a presentation on their topic. All students in each group will be responsible for helping to review and provide peer-edits for each product.

- Regarding the perceived need for additional manual skill practice in our students, we have added practice time for manual skills and treatment progression:
  - All students are now required to have a faculty-directed skills review and consolidation session prior to each clinical experience.
  - We developed a new course sequence specifically addressing therapeutic exercise (PT 418 A-D), and the course enables students to progress their manual skills from beginner to entry-level PT.
Evidence of success:

- 100% of graduating DPT students have passed the culminating experience of an evidence-based project: they have completed a manuscript (singly or in pairs), and presented their work orally in a public forum at the annual Spring Symposium at UCSF.

- Students are contributing to the body of knowledge in physical therapy through disseminated works:
  - 7 evidence-based practice culminating projects have been published in peer-reviewed journals since 2012
  - 55 students have been involved in presenting EBP projects or other research at state, national, or international research conferences since 2010.

- Students are showing that they value research and networking opportunities by participating in research conferences; 16 of the DPT 2019 cohort of 49 students attended our major national research conference in Washington D.C. in 2019. In addition, alumni, including members of the recently graduated class of 2018, attend both CPTA and CSM (state and national PT conferences) to present work completed during their doctoral studies.

- Students choose to engage in research even when hands-on research is not a required course. Many elect to take research courses despite full course loads and the fact that no "electives" are required to complete the DPT program.
  - Out of about 350 students in the last 7 cohorts (after participation in hands-on research was no longer required), 245 students took 1-9 electives each, averaging 2.9 elective course registrations per student.
  - Out of these, 135 students took a research or “laboratory project” course, several taking 2 or more projects.
  - 71 of these 135 students took a research or project course for 2 or more consecutive semesters/quarters.
  - 25 students took 2-4 semesters of mentored hands-on research as part of the PT 420 A-D series.
  - In the current academic year (2018-2019), at least 13 students have participated in a hands-on research project under the supervision of program faculty.
  - One student has applied and been accepted into the newly established DPT to PhD program in Rehabilitation Science at UCSF and has started in this program in 2019.

5. What assessment activities do you plan to undertake next academic year?

Next year, we will be working on our accreditation self study. We will likely report on a different curricular thread for the SFSU assessment report.