

Polysomnographic Technology Assessment Report 2007-08

I. Introduction

The Polysomnographic Technology Program is a new degree that began Winter term 2008. It is designed to meet the needs of new technicians working in clinics across the country. New regulations become effective 2010 requiring technicians sitting for the national registry exam to have completed a Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredited program instead of on-the-job training. This distance education program is designed to meet the CAAHEP Committee on Accreditation for Polysomnographic Technology (CoA PSG) standards and the needs of place-bound technicians. The entire program is delivered online with local clinical facilities, where the students are located, providing the clinical practica.

Since this is a new program, enrollment is low but growing at a faster pace than expected. The enrollment as of April 2008 was nine students. Our first graduating group of two students from the Certificate program was in August 2008.

It is too early to have employment rates and salaries for our graduates. However, average salary figures for the profession are available. Starting salaries range from \$38,000 to \$45,000 for registered polysomnographic technologists.

II. Program Purpose, Objectives and Student Learning Outcomes

Thus far we have had two Advisory Board meetings. The first meeting covered the content of the courses and how the clinical practice will be accomplished. The second meeting covered our assessment and accreditation processes. In addition, the first department meeting was held May 8, 2008. The discussion covered assessment of the program objectives, review of the last two terms, and recommendations for improvements. The following purpose, objectives and student learning outcomes were approved.

Program Purpose

The Polysomnographic Technology Program provides instruction and clinical practice, in a distance learning format. The program will prepare students to achieve professional proficiencies and acquire professional credentials in sleep medicine technology.

Educational Objectives

The polysomnography program will fully prepare students for immediate employment anywhere in the United States in a high demand health care profession.

Expected Program Learning Outcomes

Graduates of the Polysomnographic Associate Degree and Certificate program will have demonstrated:

1. ability to perform analysis of pre-testing information.
2. ability to accurately prepare the equipment and patient for data collection.
3. ability to accurately collect data and summarize clinical observations.
4. ability to accurately analyze, interpret, and report data.

5. a thorough understanding of normal and disordered sleep.
6. the ability to apply standard precautions throughout the patient's evaluation in order to prevent the spread of infection to patients and staff.
7. knowledge of how to provide patient support and educational information.
8. knowledge of site management.

Another learning opportunity available to students is the annual American Academy of Sleep Medicine conference held the first week of June.

III. Cycle for Assessment of Student Learning Outcomes

In accordance with CAAHEP guidelines, all objectives will be evaluated annually.

IV. Summary of 2007-08 Assessment Activities

Because the program is new, the first assessment of student learning outcomes occurred in August 2008. Detailed records of the assessment activities below are available in the department assessment coordinator's notebook.

Student Learning Outcome #1: demonstrate the ability to perform analysis of pre-testing information.

This outcome was assessed through a series of case studies required in the mock exam at the conclusion of the practicum. Students were required to be in residence on the OIT campus for this exam. The cases came from the clinical facility of our medical director and included actual physicians' orders. A rubric with a five point scale (excellent-poor) was used to determine student progress.

Analysis of data

The practicum exam was given for the first time August 21, 2008 to two students. One case was given but it was fairly comprehensive. Both students eventually recognized the issues but it took some coaxing.

Improvements for this learning outcome

The assessment was inadequate. It will be rewritten for the next administration.

Student Learning Outcome #2: demonstrate the ability to accurately prepare the equipment and patient for data collection.

This outcome was assessed through a mock practical exam that students took at the end of their third and final clinical practicum. This mock exam was given on the OIT campus and required that students be in residence for this experience.

Analysis of Data

This was a pass/fail exam. Both students passed with no problems.

Improvements for this learning outcome

The assessment tool was lacking here too. The check off list was far too detailed and confusing. A new one will be developed for the next administration.

Student Learning Outcome #3: demonstrate the ability to accurately collect data and summarize clinical observations.

This outcome was assessed through a mock practical exam that students took at the end of their third and final clinical practicum. This mock exam was given on the OIT campus and required that students be in residence for this experience.

Analysis of Data

This was a pass/fail exam. Both students passed with no problems.

Improvements for this learning outcome

The assessment tool was lacking here too. The check off list was far too detailed and confusing. A new one will be developed for the next administration.

Student Learning Outcome #4: demonstrate the ability to accurately analyze, interpret, and report data.

This outcome was assessed through a mock practical exam that students took at the end of their third and final clinical practicum. This mock exam was given on the OIT campus and required that students be in residence for this experience.

Analysis of Data

This was the weakest skill of both students. They were able to correctly identify the stages of sleep but the transitions into and out of sleep were weak. Also the ability to read through electrical/biological artifact was weak.

Improvements for this learning outcome

More emphasis needs to be placed on transitional and artifact issues in PSG 254, the last segment of the practicum. Additional tracings illustrating the transition between stages and artifacts will be discussed.

Student Learning Outcome #5: demonstrate a thorough understanding of normal and disordered sleep.

This outcome was assessed through written exams that students took at the end of their third and final clinical practicum. The test was given at the same time as the mock exam. The exam was given on the OIT campus and required that students be in residence for this experience.

Analysis of Data

This was assessed via two different exams. The first was the “post-test” that was the identical test given the first week of the program. The second exam was a “post-course exam” consisting of questions that are distributed by the Board of Registered Polysomnographic Technologists. Both students successfully passed both exams. The specific weak areas were physiology, scoring, and instrumentation.

Improvements for this learning outcome

More emphasis will be placed on the weak areas of physiology, scoring and instrumentation. An additional assignment will be given focusing on sleep physiology and additional sleep staging samples will be discussed.

Student Learning Outcome #6: demonstrate the ability to apply standard precautions throughout the patient's evaluation in order to prevent the spread of infection to patients and staff.

This outcome was assessed through written exams that students took at the end of their third and final clinical practicum. This mock exam was given on the OIT campus and required that students be in residence for this experience.

Analysis of Data

This content area was tested by both the "pre-test" and "post-course exam". All questions were correctly answered.

Improvements for this learning outcome

We will continue doing what we are doing for this objective since we have shown positive results.

Student Learning Outcome #7: demonstrate the knowledge of how to provide patient support and educational information.

This outcome was assessed through a written exam that students took at the end of their third and final clinical practicum. The test was given at the same time as the mock exam. The exam was given on the OIT campus and required that students be in residence for this experience.

Analysis of Data

Students were asked questions regarding this objective topic in their written exam. All questions were accurately answered.

Improvements for this learning outcome

We will continue doing what we are doing for this objective since we have shown positive results.

Student Learning Outcome #8: demonstrate the knowledge of site management.

This outcome was assessed through a written exam that students took at the end of their third and final clinical practicum. The test was given at the same time as the mock exam. The exam was given on the OIT campus and required that students be in residence for this experience.

Analysis of Data

Students were asked questions regarding this objective topic in their written exam. All questions were accurately answered.

Improvements for this learning outcome

We will continue doing what we are doing for this objective since we have shown positive results.

V. Planned Program Improvements

Per the assessment activities above, the following improvements in learning outcomes will be implemented in 2008-09.

Student Learning Outcome #4: demonstrate the ability to accurately analyze, interpret, and report data.

More emphasis needs to be placed on transitional and artifact issues in PSG 254, the last segment of the practicum. Additional tracings illustrating the transition between stages and artifacts will be discussed.

Student Learning Outcome #5: demonstrate a thorough understanding of normal and disordered sleep.

More emphasis will be placed on the weak areas of physiology, scoring and instrumentation. An additional assignment will be given focusing on sleep physiology and additional sleep staging samples will be discussed.