

## 45th Biennial Convention (16-20 November 2019)

### Impact of Student Fatigue on Student Outcomes at Three Points in a BSN Nursing Program

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Fatigue raises concerns as to the ability of the nurse or nursing student to think clearly and to provide safe care. While several studies have indicated problems with daytime sleepiness as a component of fatigue for nursing and other university students (Abdalqadar, Mohammed, Alhoot, Alwan, & Halim, 2018; Demier, 2017; Huagn, Yang, Wu, Liu, & Chen, 2014; Lemma, Berhane, Worku, Gelaye, & Williams, 2014), only one study has suggested that workload fatigue actually begins during prelicensure nursing educational programs (Rella, Windwood, & Lushington, 2009). Guided by caring and adaptation nursing theories, this descriptive and exploratory study was a cross-sectional look at students enrolled in a prelicensure baccalaureate program to determine the degree of fatigue that full time baccalaureate students experience in a non-traditional BSN nursing program and the impact of fatigue on academic outcomes. Fatigue was measured by the Occupational Fatigue and Early Recovery Scale (OFER) developed by Winwood, Winefield, Dawson, & Lushington (2005). The OFER scale has three subscales: Acute Fatigue (feeling tired on a daily basis); Persistent Fatigue (feeling tired most of the time); Chronic Fatigue (tiredness so severe and persistent that it is like depression). The range of possible scores for each scale and the total OFER scale score is 0 to 100. Results on an early assessment evaluation of challenges to academic success such as motivation and resilience and social support were studied to determine if they interacted with fatigue in predicting academic outcomes. Academic outcomes were two standardized assessments of mastery of curriculum content given mid-way and at the end of the program. In addition, demographic variables, such as weekly travel time and employment hours per week, were studied as covariates. The response rate was 10.5% with 346 students responding to the request to complete the OFER scale and additional survey items. Subjects comprised three cohorts of students in this cross-sectional study, entry ( $n=85$ ), mid-point ( $n=193$ ), and end of program ( $n=68$ ). They were recruited by an online invitation that included a consent form describing the study. All data were completed online. Students in the earliest (transition) course reported significantly less chronic fatigue than those at the mid-point and end of the program. Incoming students had a higher level of acute fatigue than chronic or persistent fatigue but the mean acute fatigue score was still significantly lower than at other times in the program. Weak correlations were found between age, course, paid employment, and acute fatigue; between course, travel time to clinical experiences, and persistent fatigue; and between travel time to clinical experiences and course and chronic fatigue; between travel time to clinical experiences, course, and the total fatigue score. Whereas, Rella et al. (2009) reported overall lower fatigue scores across groups, correlations regarding academic outcomes and fatigue were similar, suggesting student fatigue increases as students begin clinical courses and remains relatively constant for the remainder of the program. Both Rella et al. and this study reported

approximately 85% of students work part-time to full-time while going to school. Self-care strategies for fatigue reduction should be considered for inclusion in the curriculum

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**Title:**

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**Keywords:**

Academic outcomes, BSN program and Student fatigue

**References:**

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**Abstract Summary:**

This presentation presents findings of a cross-sectional, exploratory study which determines the degree of fatigue full time baccalaureate students experience and the impact of fatigue on academic outcomes at entry, mid-point, end of program. Results suggest self-care strategies for fatigue reduction should be included in the curriculum.

## **Content Outline:**

Title: Impact of Student Fatigue on Student Outcomes at Three Points in a BSN Nursing Program

### I. Introduction

- A. Background
- B. Review of literature

### II. Methodology

#### A. Cross-sectional descriptive correlational study

##### 1. Participants, pre-licensure BSN students at three points in the program:

- a.) Entry to program
  - b.) Mid-program
  - c.) End-of-program
- ##### 2. Human Subjects protection
- a.) Institutional IRB
  - b.) E-mail invitation
- ##### 3. Data collected
- a.) OFER fatigue scale
  - b.) Demographic information
  - c.) Academic assessments

#### B. Findings

- 1. N=346
- 2. OFER results
  - a.) Fatigue by program level
  - b.) Significant levels of fatigue
- 3. Academic assessments results
  - a.) By program level
  - b.) Comparisons between groups

#### C. Discussion

### III. Conclusion

- A. Recommendations
- B. Implications

### First Primary Presenting Author

#### ***Primary Presenting Author***

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**Author Summary:** Dr. Spies has been a nurse educator for over 30 years at the associate

degree, baccalaureate, and graduate levels both on-campus and online. Over the years, she has observed changes in undergraduate nursing students including older age and almost all are involved in outside employment. This led to Dr. Spies' interest in the effect of student fatigue on academic performance.

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**Author Summary:** After reading a study about fatigue in nursing students, Dr. Poole became interested in determining whether fatigue could affect the academic performance of undergraduate nursing students. A baccalaureate nurse educator for 27 years; her clinical experience is peri-anesthesia settings. She has held leadership positions in the Perianesthesia Nursing as well as authoring multiple articles and editorials. Inaugural member of the Fellows of the American Society of PeriAnesthesia Nursing; founding president of Sigma Phi Pi Chapter.