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2016 Oklahoma Research Day

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15. Pharmacy

Northeastern State University

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Abstracts from the 2016 Oklahoma Research Day

Held at Northeastern State University

05. Mathematics and Science

15. Pharmacy

05.15.01 Pertussis Booster Vaccination

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Mahieu,Jennifer *Northwestern State University*

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Pertussis, also known as whooping cough, is a highly contagious respiratory disease, caused by the bacterium *Bordetella pertussis*. Although preventable by a vaccination we receive in five doses as a child; pertussis causes nearly three hundred thousand deaths in child annually. The authors wanted to find if we completed our vaccinations as a child then why do we need a booster when becoming pregnant or when around small child? The thought process was that like other disease, such as measles, we receive the vaccinations as a child and are protected throughout adulthood; shouldn't pertussis have the same concept? Our research results suggest that post vaccination duration of immunity ranges from four to twelve years. Researchers are suggesting that adults receive a pertussis booster every ten years.

05.15.03 Evaluation of the Immediate Impact of Relaxation Techniques on Student Psychological and Physiological Health

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Lajaunie,Angelica *Southwestern Oklahoma State University*

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The Accreditation Council for Pharmacy Education has incorporated a new objective in addressing stress mitigation. This study investigates the acute impact of relaxation techniques on student psychological and physiological well-being by evaluating changes in (1) self-reported levels of stress and anxiety, (2) salivary components which measure stress, and (3) student perceptions of relaxation techniques. Pharmacy and Pre-Pharmacy students (aged 18 years or older) will be randomly assigned to one of five treatments. These include three relaxation interventions (body scan, mindfulness, or 4 x 4 meditation) and two comparators (power posing or app gaming). In a private setting, each subject will (1) provide a pre-treatment salivary sample, (2) complete surveys assessing pre-treatment stress and anxiety levels, plus provide initial perceptions regarding their treatment, (3) perform the assigned treatment, (4) complete post-treatment surveys, and (5) provide a post-treatment salivary sample. Salivary samples will be analyzed using commercial kits (Salimetrics, LLC) for cortisol and alpha-amylase as indicators of stress. A minimum of eighty subjects will be recruited. We expect relaxation techniques to lower post-treatment stress and anxiety levels more than comparators. Accordingly, we hypothesize subjects will have improved perceptions toward conducting relaxation techniques. The ultimate goal is to change attitudes regarding the benefits of relaxation in future pharmacists.