

Global Summit on **NURSING CARE AND MIDWIFERY**

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**How to change the nursing students' negative attitude toward statistics? Investigating the role of math background and personality traits****Francesco Bruno***University of Florence, Italy*

**Statement of the Problem:** Nurses can enhance patient care by identifying patterns of signs and symptoms, documenting the timing of the given medication, following protocols, recognizing if a commonly used method should be changed or if protocols should be revised. All these aspects are way to use statistics. For these and other reasons, Nursing students have compulsory statistics courses in their degree program. However, they usually have negative attitudes toward statistics that may hinder their learning. The present study aims to: (i) investigate nurse students' attitudes toward statistics and the relationships with mathematical background and personality traits; (ii) stress individual changes in attitude that occur during the course; and (iii) explore if mathematical background and personality traits influence these changes. Methodology & Theoretical Orientation: A one-group pre-post survey design was adopted. Fifty nursing students were enrolled in an introductory statistics course at the Sapienza University of Rome in Italy (2018/2019 academic year). Participants were surveyed at the beginning and end of the course administering a multidimensional measure of attitude toward statistics. Multiple Regression analyses were run to establish the relative impact of mathematical background and Big Five personality factors on attitude components, as well as the changes in these attitude components. Findings: Results confirmed the predictive role of mathematic competence on some attitude dimensions and showed that also personality traits influenced attitudes toward statistics. However, the observed changes in attitudes during the course were minimally influenced by these factors. Conclusion & Significance: Findings stress the need to focus the attention on the teaching of statistics. Indeed, we showed that the course changed students' attitudes and that these changes were only marginally linked to students' personal characteristics. Therefore, tailored pedagogical interventions for nursing students should be developed to improve their attitudes and promote the statistical literacy needed in their future

**Biography**

Francesco Bruno is an Italian psychologist and neuroscientist. During the 2018-2019 academic year he was adjunct professor of "Statistics for experimental and technological research" and "Medical Statistics" at the degree course in Nursing of La Sapienza - University of Rome. Currently he teaches "Clinical Trial" at the degree course in Nursing and Midwifery Sciences of La Sapienza - University of Rome and "Fundamentals of Psychobiology" at the degree course in Sciences and Techniques of Cognitive Psychology of Magna Graecia - University of Catanzaro. In parallel, he also carries out research at the Regional Center for Neurogenetics (CRN) of Lamezia Terme. In 2018 he published with Sonia Canterini the essay "The Science of Hugs" among the winners of the Milano International Literary Prize 2019.

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