PGDP-727: Research Seminar I

The main goals of research seminar are to acquaint students with the basic concepts and methods of statistics, their applications, and their interpretations as used in dental health research. Students will learn quantitative research terminology and its meaning, how to calculate various statical measures and indices, and how to compute and interpret inferential statistical techniques. Students will also acquire the ability to utilize the statistical software package SPSS as tools to facilitate the processing, editing, storing, displaying, analysis, and interpretation of dental health research-related data. This course covers several content areas related to quantitative data analysis. These areas include (a) quantitative research terminology, (b) SPSS & data preparation for entry in SPSS, (c) Descriptive statistics: Frequency distributions, graphical presentation of data, and measures of central tendency and variability, (d) Normal and skewed distributions, (e) Identify steps in hypothesis testing: Research hypotheses, Type I- & Type II-errors, & statistical significance, (f) Inferential statistics: Parametric vs. non-parametric tests, (g) Guidelines for test selection, (h) Bivariate statistical techniques: Pearson's correlation coefficient, Student's t-tests, One-way analysis of variance and covariance (ANOVA / ANCOVA), and Chi-square tests, and (i) Presentation, interpretation, and reporting of findings.
Credits: 2
Program: Postgraduate Dental Program