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As a Little-Known Side a Passionate Statistician: Florence Nightingale

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Abstract: Background: Florence Nightingale, the modern founder of the nursing, is most famous for her role as a nurse. But not so much known about her contributions as a mathematician and statistician. Aim: In this conceptual article it is aimed to examine Florence Nightingale's statistics education, how she used her passion for statistics and applied statistical data in nursing care and her scientific contributions to statistical science. Design: Literature review method was used in the study. The databases of Istanbul University Library Search Engine, Turkish Medical Directory, Thesis Scanning Center of Higher Education Council, PubMed, Google Scholar, EBSCO Host, Web of Science were scanned to reach the studies. The keywords 'statistics' and 'Florence Nightingale' have been used in Turkish and English while being screened. As a result of the screening, totally 41 studies were examined from the national and international literature. Results: Florence Nightingale has interested in mathematics and statistics at her early ages and has received various training in these subjects. Lessons learned by Nightingale in a cultured family environment, her talent in mathematics and numbers, and her religious beliefs played a crucial role in the direction of the statistics. She was influenced by Quetelet's ideas in the formation of the statistical philosophy and received support from William Farr in her statistical studies. During the Crimean War, she applied statistical knowledge to nursing care, developed many statistical methods and graphics, so that she made revolutionary reforms in the health field. Conclusions: Nightingale's interest in statistics, her broad vision, the statistical ideas fused with religious beliefs, the innovative graphics she has developed and the extraordinary statistical projects that she carried out has been influential on the basis of her professional achievements. Florence Nightingale has also become a model for women in statistics. Today, using and teaching of statistics and research in nursing care practices and education programs continues with the light she gave.

Keywords: Crimean war, Florence Nightingale, nursing, statistics

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