

## The Effect of Disseminating Basic Knowledge on Radiation in Emergency Distance Learning of COVID-19

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**Abstract :** People are susceptible to rumors when the cause of their health problems is unknown or invisible. In order for individuals to be unaffected by rumors, they need basic knowledge and correct information. Community health nursing classes use cases where basic knowledge of radiation can be utilized on a regular basis, thereby teaching that basic knowledge is important in preventing anxiety caused by rumors. Nursing students need to learn that preventive activities are essential for public health nursing care. This is the same methodology used to reduce COVID-19 anxiety among individuals. This study verifies the learning effect concerning the basic knowledge of radiation necessary for case consultation by emergency distance learning. Sixty third-year nursing college students agreed to participate in this research. The knowledge tests conducted before and after classes were compared, with the chi-square test used for testing. There were five knowledge questions regarding distance lessons. This was considered to be 5% significant. The students' reports which describe the results of responding to health consultations, were analyzed qualitatively and descriptively. In this case study, a person living in an area not affected by radiation was anxious about drinking water and, thus, consulted with a student. The contents of the lecture were selected the minimum amount of knowledge used for the answers of the consultant; specifically hot spots, internal exposure risk, food safety, characteristics of cesium-137, and precautions for counselors. Before taking the class, the most correctly answered question by students concerned daily behavior at risk of internal exposure (52.2%). The question with the fewest correct answers was the selection of places that are likely to be hot spots (3.4%). All responses increased significantly after taking the class ( $p < 0.001$ ). The answers to the counselors, as written by the students, were 'Cesium is strongly bound to the soil, so it is difficult to transfer to water' and 'Water quality test results of tap water are posted on the city's website.' These were concrete answers obtained by using specialized knowledge. Even in emergency distance learning, the students gained basic knowledge regarding radiation and created a document to utilize said knowledge while assuming the situation concretely. It was thought that the flipped classroom method, even if conducted remotely, could maintain students' learning. It was thought that setting specific knowledge and scenes to be used would enhance the learning effect. By changing the case to concern that of the anxiety caused by infectious diseases, students may be able to effectively gain the basic knowledge to decrease the anxiety of residents due to infectious diseases.

**Keywords :** effect of class, emergency distance learning, nursing student, radiation

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