

Evaluation of the Level of Knowledge and Awareness of Radiation Protection among Radiation Therapists in Sri Lanka.

MRM Anaas^{1#}, WWT Nethmini¹, HKA Dharmasiri¹, and R Tudugala¹

¹Department of Radiography and Radiotherapy, Faculty of Allied Health Sciences, General Sir John Kotelawala Defence University, Sri Lanka

#anaasxd123@gmail.com

Radiation therapists are exposed to ionizing radiation during treatments making it essential for them to understand and apply radiation protection principles to safeguard their health. Inadequate training or knowledge can lead to unsafe practices and increased exposure risks. This study aims to assess knowledge and awareness on radiation protection among radiation therapists in Sri Lanka, identify existing knowledge gaps, and guide targeted training to enhance safety protocols and improve care quality. A descriptive cross-sectional study was conducted to analyze characteristics and factors associated with radiation therapists. Data was summarized by frequency and in terms of mean and standard deviation, and normality was assessed using the Kolmogorov-Smirnov test. Non-parametric tests, namely Spearman's correlation and Kruskal-Wallis H-test were used for statistical analysis since the data did not follow normal distribution. The criterion for statistical significance was set at a p-value less than 0.05. The study included a sample size of 91, from which 52 responses were successfully collected. The Kruskal-Wallis test showed significant differences in general radiation protection knowledge ($p = 0.03$) and the total score of knowledge and awareness of radiation protection based on educational qualifications ($p = 0.05$). However, no significant differences were found in the mean rank scores of radiation protection knowledge related to working experience ($p > 0.05$). This study verified that the overall score of knowledge and awareness on radiation protection among radiation therapists in Sri Lanka was quite satisfactory.

Keywords: *radiation therapists, radiation protection, safety practices, treatment doses*