Exploring Safety Culture in Interventional Radiology: A Cross-Sectional Survey on Team Members' Attitudes

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Abstract: Introduction: Interventional radiology (IR) is a continuously growing discipline that allows minimally invasive treatments of various medical conditions. The IR environment is, in several ways, comparable to the complex and accidentprone operation room (OR) environment. This implies that the IR environment may also be associated with various types of risks related to the work process and communication in the team. Patient safety is a central aspect of healthcare and involves the prevention and reduction of adverse events related to patient care. To maintain patient safety, it is crucial to build a safety culture where the staff are encouraged to report events and incidents that may have affected patient safety. It is also important to continuously evaluate the staff's attitudes to patient safety. Despite the increasing number of IR procedures, research on the staff's view regarding patients is lacking. Therefore, the main aim of the study was to describe and compare the IR team members' attitudes to patient safety. The secondary aim was to evaluate whether the WHO safety checklist was routinely used for IR procedures. Methods: An electronic survey was distributed to 25 interventional units in Sweden. The target population was the staff working in the IR team, i.e., physicians, radiographers, nurses, and assistant nurses. A modified version of the Safety Attitudes Questionnaire (SAQ) was used. Responses from 19 of 25 IR units (44 radiographers, 18 physicians, 5 assistant nurses, and 1 nurse) were received. The respondents rated their level of agreement for 27 items related to safety culture on a five-point Likert scale ranging from "Disagree strongly" to "Agree strongly." Data were analyzed statistically using SPSS. The percentage of positive responses (PPR) was calculated by taking the percentage of respondents who got a scale score of 75 or higher. The respondents rated which corresponded to response options "Agree slightly" or "Agree strongly". Thus, average scores ≥ 75% were classified as "positive" and average scores < 75% were classified as "non-positive". Findings: The results indicated that the IR team had the highest factor scores and the highest percentages of positive responses in relation to job satisfaction (90/94%), followed by teamwork climate (85/92%). In contrast, stress recognition received the lowest ratings (54/25%). Attitudes related to these factors were relatively consistent between different professions, with only a few significant differences noted (Factor score: p=0.039 for job satisfaction, p=0.050 for working conditions. Percentage of positive responses: p=0.027 for perception of management). Radiographers tended to report slightly lower values compared to other professions for these factors (p<0.05). The respondents reported that the WHO safety checklist was not routinely used at their IR unit but acknowledged its importance for patient safety. Conclusion: This study reported high scores concerning job satisfaction and teamwork climate but lower scores concerning perception of management and stress recognition indicating that the latter are areas of improvement. Attitudes remained relatively consistent among the professions, but the radiographers reported slightly lower values in terms of job satisfaction and perception of the management. The WHO safety checklist was considered important for patient safety.

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