Method;: Peer-reviewed IPE publications in radiotherapy settings were sourced from PubMed, MEDLINE, Science Direct and Cochrane Library using the 2009 PRISMA guidelines. A search strategy was designed to identify, select and critically appraise the published evidence focusing on IPE RT planning between 2010 and 2020. Studies that were eligible for review met the PICOS (population, intervention, comparison, outcome and setting) framework. Included studies were assessed for relevance and content were critically appraised and analyzed.

Results: A total of 15 articles from 5 countries met the inclusion criteria for qualitative analysis. Concept analysis of these IPE articles identified three themes, the importance of IPE, ways of implementing IPE and challenges related to in RT planning settings. All the identified themes were categorized from nine sub themes.

Conclusions: There is an association between IPE intervention and the quality of RT planning outcome. Understanding the value, effect of IPE and its application in RT planning require further research.

Keywords: Interprofessional education, radiotherapy, radiotherapy planning

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Interprofessional collaborative practice in radiation oncology of Metastatic spinal cord compressed patients: Qualitative study

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Background: Metastatic spinal cord compression (MSCC) is compression of the spinal cord or caudal equina as a result of the progression of metastatic lesions within the vicinity of the spinal cord. The consequences are very severe with loss of neurological function and severe pain. The standard treatment is surgical intervention followed by radiotherapy or radiotherapy alone in rising life expectancy of cancer patients, prevention of irreversible neurological injury, pain treatment, maintain patients' mobility, function and independence. In RO clinics Interprofessional collaborative practice (IPC) becomes essential in rising life expectancy of cancer patients. Although Interprofessional education (IPE) has been recognized to improve health care delivery and patient outcomes yet IPE and IPCP data in RO of MSCC) are lack and limited.

Aim: This qualitative study primarily aimed to appraisal of IP practice in radiation oncology of MSCC.

Methods: A Survey was conducted from July2021 to April 2022 with radiation oncologists professions across two radiation oncology clinics affiliated in Dar –Es salaam. On appointment Interviews were recorded, de-identified, and transcribed verbatim. Resulting transcripts were analyzed using thematic analysis.

Results: Seventy interviews were performed with radiation oncologist's professions. Following thematic analysis 4 themes were identified: (1) challenges associated with management of the radiation oncology clinic to the patients with highly needs, (2) potential impact IP in MSCC as special cases (3) current situation of IPE in radiation oncology settings and (4) creating an IPE initiatives in radiation oncology.

Conclusions: This study hypothesized that misunderstanding professionals' roles can lead to communication breakdown and less efficient IN RO clinics. This study suggests Well-structured IPE Exposure for radiation oncologists professions can be an opportunities to professions working in palliative care environment.

Keywords: Interprofessional collaborative-practice, radiotherapy, Metastatic spinal cord compression

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Evaluating Satisfaction of the Radiologist Assistant within an Academic Pediatric Institution: Comparing Reviews from Staff Radiologic Technologists, Radiologists, and Radiology Residents

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Introduction: I plan to evaluate how my position as a Radiologist Assistant (RA) has influenced a busy fluoroscopic department at an Academic Pediatric Institution. Both the staff body radiologists and staff radiologic technologists were given a satisfaction survey to judge my performance. First year radiology residents (R1s) from academic years 2018-2019 and 2019-2020 were also given a satisfaction survey to judge my skills at training within the fluoroscopic suite.

Methods: To receive adequate input, I created a 10-question survey, which was subsequently distributed to the pediatric division body Radiologists and pediatric division Radiologic Technologists. Radiology Residents from academic years 2018-2019 and 2019-2020 were also provided with similar surveys to assess their overall experience of a Radiologist Assistant training them in pediatric fluoroscopy.

Results: A total of 29 surveys were distributed. Out of those 29 surveys distributed, 23 surveys were collected: 4 out of 4 Radiologists responded, 9 out of 9 Radiologic Technologists responded, and 10 out of 16 Radiology Residents responded. The total percentage that responded was 79%. Survey results are currently be scored and will be shared.

Conclusion: Radiologist Assistants are specialized physician extenders in field of Radiology, who provide a continuity of care, are efficient, provide patient care, and perform a various range of Radiology procedures. RAs work in various areas of Radiology, as well as in private and academic facilities. The utilization of an RA is beneficial to the department and can be considered a key component in teaching Radiology procedures.

Keywords: Radiologist Assistant, Radiologists, Radiology, Residents, Radiologic Technologists, Training

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Advanced Practice amongst Therapeutic Radiographers/ Radiation Therapists. Exploring the potential of the four pillars: preliminary results from a European perspective

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Introduction: New roles have been developed under the umbrella of Advanced Practice (AP) amongst Therapeutic Radiographers/ Radiation Therapists (TR/RTTs). AP roles plays a key part in enhancing capacity and capability within the oncology workforce, streamlining patient pathways. This study aimed to investigate the profiles of advanced practitioners using the four pillars of AP (clinical practice, education, research, leadership and management) in current practice and education.

Methods: A qualitative study design using online semi-structured interviews was undertaken. Convenience sampling was used to recruit different stakeholders. Two pilot interviews were performed, and minor amendments were applied to the interview guides. 23 interviews were conducted by the same researcher during June and July 2022, lasting, on average, 48 minutes. Full verbatim independently transcriptions were analysed thematically (NVivo v1.5.2) after member checking by interviewees.

Results: The interviewees were advanced TR/RTTs practitioners, managers, educators, students, and professional bodies representatives from 14 European countries. Several themes emerged. Stakeholders valued the importance of the four pillars of AP but recognized the lack of dedicated time for research pillar. As such stakeholders perceived this could affect evidence-based practice in radiotherapy, compromise the role development of the profession and consequently the quality of care delivered to cancer patients. Some related factors considered to hinder the practice across all pillars were: professional recruitment and retention issues, lack of education support, inconsistent level of practice at national/European levels, lack of recognition and regulation of the level, variability of AP roles among others.

Conclusion: Education and training support allied with regulation of the AP roles is an urgent need, especially in pillars of research, and leadership and management. Standardisation of AP level is recommended at national and European levels. This is of prime importance to meet the ever-increasing complex needs of cancer patients.

Keywords: Advanced Practice, Radiation Therapy, Therapeutic Radiographers, Radiation Therapists, role development

Person centred Care in the Radiography curriculum – the patient's perception of undergoing Radiotherapy

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Introduction: Person Centred Practice (PCP) in healthcare entails keeping the person in the centre of decision making. It includes the core values of authenticity, shared autonomy, respect for the persons abilities and preferences, understanding, therapeutically caring and a commitment to healthfulness as an outcome. A high level of care is vital in the practice of Therapeutic Radiographers/Radiation Therapists (TRs/RTTs) to ensure quality of care and patient safety. This study aimed to assess the patient's perception of their experience whilst undergoing Radiotherapy (RT).

Methods: Ethical permission was obtained from Ulster University, Belfast, UK. Phase 1 consisted of a previously published survey the Person-centred Practice Inventory for Service Users. In phase 2 online and face to face interviews were conducted with radiotherapy patients across the UK, Portugal, and Malta. Patients >18years currently receiving, or who had received radiotherapy within the last 24 months, were included in the study. Descriptive statistics (SPSS) and thematic analysis (NVivo) were performed.

Results: While variations in practice occurred across countries, most patients felt that TRs/RTTs had the required competencies to listen, understand and communicate compassionately with them during their treatment. The core values of the patient were respected; however, further work is required to ensure shared autonomy for patients and more flexibility to accommodate patient ability and preferences. Psychosocial support was highly regarded by patients who expressed a desire for further information communicated from their TRs/RTTs at the end of their treatment.

Conclusion: It is necessary to ensure that TRs/RTTs develop the necessary interpersonal skills and emotional intelligence to enable them to adopt the best patient care. TRs/RTTs' education must provide them with advanced communication skills and an understanding of patient psychology. Some of these skills can also be reinforced through continuing professional development.

Keywords: Person Centred Care, Radiotherapy, Patient voice, Skills, Education

Brain morphometry and Seed-based analysis of resting-state functional connectivity in default mode network of Alzheimer's disease patients compared with healthy control subjects in the Klang Valley, Malaysia

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Introduction: The default mode network (DMN) is a large brain network in the human brain and has a substantial correlation with Alzheimer's disease (AD). Grey matter volume (GMV) and functional connectivity (FC) were reported to be different between AD and healthy control (HC). Nevertheless, the structural and functional alterations that take place in AD in association with the DMN in Malaysian patients is not well understood. Our aim was to show how structural MRI data could be processed using voxel-based morphometry (VBM) to identify differences in regional grey matter volume (GMV) between AD patients and HC. Comparison of the variations in rs-functional connectivity in the DMN on fMRI scans between AD and HC was another objective of this study.

Methods: Based on our institutional geriatrician's clinical evaluation, neuropsychological tests such as the MoCA, MMSE, and assessment utilising CDR, the subjects were recruited and categorised as AD and HC. RS-fMRI scan was acquired and VBM seed-based analysis (SBA) was performed using SPM 12, Matlab to evaluate the GMV. SPM12 software and CONN toolbox was used to evaluate the functional connectivity and activation of the nodes of the DMN comparing AD and HC.

Results: 22 subjects recruited in this pilot study [AD, n = 11, Age 64-84 (76.36 ±0.52) and HC, n = 11, Age 64-79 (69.91 ±5.34)]. In the AD group compared to HC, there was decreased GMV at the right and left inferior temporal gyrus (ITG r and ITG l), left superior frontal gyrus (SFG l), right superior frontal gyrus medial segment (MSFG r), right gyrus rectus, right temporal lobe, left putamen and right precuneus respectively. Significant decrease in activation of nodes of the DMN noted in AD>HC.

Conclusion: AD and HC patients have different GMV and resting-state FC profiles. The DMN showed local correlation and between-network FC differences between the AD and HC groups at different sources. By detecting decreased GMV with VBM and poor functional connection in the DMN, structural MRI and rs-fMRI can help distinguish HC from AD.

Keywords: Voxel-based morphometry, Seed-based analysis, grey matter volume, Alzheimer's disease

A Comparison of CT brain image quality between two scanners model using texture analysis in Samitivej Srinakarin Hospital

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