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## Introduction

The Welsh Government is committed to creating a healthcare system that truly values research across NHS Wales. NHS organisations therefore have responsibility for valuing, promoting, building and sharing research activity.

Addressing key patient-focused research priorities is a fundamental principle of the therapeutic radiography profession. Improving patient outcomes and enhancing the lives of patients treated with radiotherapy across Wales is of paramount importance. However, for therapeutic radiographers to conceive, develop and lead research which is clinically meaningful to the profession, education and training is essential to build capability within the workforce.

In 2021, the Velindre Cancer Centre Radiotherapy Research Team and the Radiotherapy Education Team at Cardiff University worked together to develop a research program for undergraduates. This provision of education and training, delivered through a collaborative approach, aims to enhance knowledge, encourage curiosity, promote evaluation and build research capability of the future therapeutic radiography workforce serving the public and NHS Wales.

## Aims & Objectives

The vision was to produce a quality undergraduate All-Wales research program that:

- Supports students to deliver evidenced based practice
- Empowers creativity & curiosity
- Develops innovators of the future
- Creates a passion for research
- Develops research capability within the future workforce
- Instills that research is the "business of everyone"
- Aids post-graduate research

## Materials & Methods

Delivering improvements in healthcare requires the alteration of processes within complex social systems that change over time in both predictable and unpredictable ways (NHS England, 2018).

The methodology of choice to test the undergraduate research program was Plan-Do-Study-Act (PDSA) which is widely accepted in healthcare improvement (Berwick, 1998).

This method was deemed the most appropriate due to its flexibility and ease of iterative cycles for refinement of what was likely to be a complex implementation of processes.



Fig 1. Cycle of Plan-Do-Study-Act (PDSA)

## The Primary Question

How do we make a lasting positive change?

- **Collaboration** - Cardiff University & Velindre Cancer Centre
- +ve resources – **great people with knowledge and skills**
- Post-COVID world **new ways of working** essential
- **Online** delivery platform
- **Increase the numbers** for interaction and engagement
- **Program timing** to support academic research project
- **Sustainable** - program to be delivered by a **variety of teams** and individuals
- **Development** of program content
- **Consolidation** of student learning – tasks & reflection

## Results

### On Reflection

What have we learned?

- It has been a journey, and at times very difficult
- Only works as a collaborative effort across Wales – program now includes South West Wales Cancer Centre
- Respect for each other's roles and responsibilities
- The need to include evidence in the delivery – show how the research changed clinical practice
- Students showcase their learning when presenting their task - each time we see more

## Conclusions

- \* The program continues to evolve.
- \* Each iteration it gets closer to the aim/vision.
- \* Developing skills with technology and new ways of working.
- \* Stronger together - Collaboration with South West Wales Cancer Centre.

## References

- Berwick, D. (1998). Developing and Testing Changes in Delivery of Care. *Annals Of Internal Medicine*, 128(8), 651. doi: 10.7326/0003-4819-128-8-199804150-00009
- NHS England (2018) *The Change Model Guide*. Retrieved from <https://www.england.nhs.uk/wp-content/uploads/2018/04/change-model-guide-v5.pdf>