

Overcoming Barriers to Research

WARNING



AUTOMATIC BARRIER

"If we knew
what we were
doing, it
wouldn't be
called research"

Albert Einstein





The Society & College of
Radiographers

The view of the radiographer

Integrating research into all aspects of practice: Making Research Happen for Radiographers

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Why do research?



By definition professions are expected to contribute to the body of knowledge that is necessary for a profession to progress.

“ Radiography has been considered by some to be **semi-professional** since much of its knowledge base was built on research undertaken by medical practitioners and physicists, rather than by radiographers.”

Nixon (2001)

“Research skills are needed in professional practice because radiography must not continue to be simply an **uncritical consumer** of research but needs to generate and evolve its knowledge base.”

Manning and Bentley (2003), page 4



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Why do research?



“Research deficits may well restrict career progression and therefore the chance to improve services.”

Kelly et al (2008), page e75

“An important aspect of professionalisation is the **continuous growth** of professional knowledge through ongoing research conducted by members of the profession.”

Sim and Radloff (2009), page 205

“To develop as a research active and research **credible profession** radiography still has further work to do and opportunities need not only to be identified, but also pursued, to continue to raise the profile of research in both clinical and academic settings.”

Snaith (2012), page 4



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The overarching Society and College of Radiographers' vision for research is to improve patient care and outcomes by continuing to develop, grow and implement a high quality evidence base that addresses key patient-focussed research priorities.





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Research – whose job is that?

“Professional bodies, educators and the research community are vital partners to enable the benefits of research to be fully realised. Whether that is through education and training, supporting adoption and dissemination of research findings, or active involvement in research.”

...

**“Research is everyone’s business.
It is important for everyone.”**



*Shelagh Morris, OBE
Deputy Chief Allied Health Professions Officer
NHS England
04/11/14 CfAHPR launch event*



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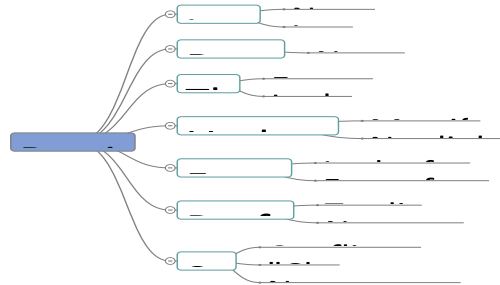
The Career Progression Framework

- ✓ All practitioners should be research aware;
- ✓ Advanced practitioners should contribute to research and must use evidence in their practice;
- ✓ Consultant practitioners should be advancing in practice and be leaders in their field, who are advising and supporting others. They will have a crucial function in ensuring research happens.



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Do radiographers have the Capacity and Capability to research?





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Supporting the 4 core domains

- ✓ Expert clinical practice;
- ✓ Professional leadership and consultancy;
- ✓ Practice and service development, research and evaluation;
- ✓ Education and professional development.





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Expectations (1)



1. By 2021 **all** research undertaken within the radiography profession will demonstrate a **potential** impact on patient care and/or service delivery.
2. By 2021 **all** research projects undertaken within the radiography profession will have evidence of involvement of patients and the public and/or relevant stakeholders.
3. By 2021 **all** clinical and academic radiotherapy and imaging departments will have a local research strategy.
4. By 2021 **all** research undertaken within the radiography profession will be disseminated to a relevant forum.
5. Research funding income across the radiography profession will increase year on year, with a greater number of radiographers acting as Principal Investigator for nationally, or internationally, competitive grants.



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Expectations (2)



6. By 2021 clinical research careers will be well established within radiotherapy and imaging departments, supported by the national researcher job profiles for Allied Health Professionals.
7. By 2021 there must be an expectation that all practitioners in radiography at advanced practitioner level hold a minimum of a full Master's degree.
8. By 2021 there must be an expectation that all practitioners in radiography at consultant level will hold, or be working towards, a Doctoral level award.
9. By 2021 1% of the radiography workforce (about 300) will hold, or be working towards, a Doctoral level award.
10. More research from radiographic practitioners will be Research Exercise Framework (REF) returnable.



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AIM 1: Embed research at all levels of radiography practice and education

- 1.1 Develop a radiography workforce that engages critically with research to ensure that care provided to service users is based on the best available evidence.
- 1.2 Foster a culture across the radiography profession that values research and evaluation activities as a core part of delivering high quality patient care for all.

AIM 2: Raise the impact and profile of radiography through high quality research focussed on improving patient care and/or service delivery

- 2.1 Ensure all research conducted by radiographers has a clear benefit to patient care and/or service delivery.
- 2.2 Strengthen and focus research to address international, national, regional and professional priorities.
- 2.3 Continue to improve quality of research supported by strong research leadership
- 2.4 Strengthen collaborative links between clinical and education institutions and industry partners to encourage the transfer of research ideas, skills and people.
- 2.5 Increase high quality dissemination of radiography research both within and outside the profession with a focus on maximising impact on patient care and/or service delivery.

AIM 3: Expand UK radiography research capacity through development of skilled and motivated research active members of the profession

- 3.1 Embed research skills in the learning experience of every radiography student.
- 3.2 Increase radiographer engagement with clinical research activities and postgraduate research degrees.
- 3.3 Embed the clinical-academic radiographer role and increase the number of radiographers in research posts.
- 3.4 Encourage radiography researchers at all levels to apply for funding.

- imp** / imp /
1. a mischievous child
 2. a small demon
 3. obsolete a graft

impact / impakt / n.
the benefit or contribution
to society of research

impair / im-pâr / tr.v.
cause to diminish, as
value, or quality

A photograph of a grassy lawn with a banner made of white tape. The banner spells out the words 'GETTING STARTED' in a simple, blocky font. The tape is laid out on the grass, and the letters are clearly visible. The background is a lush green lawn with some patches of brown soil.

GETTING STARTED

Getting started with research



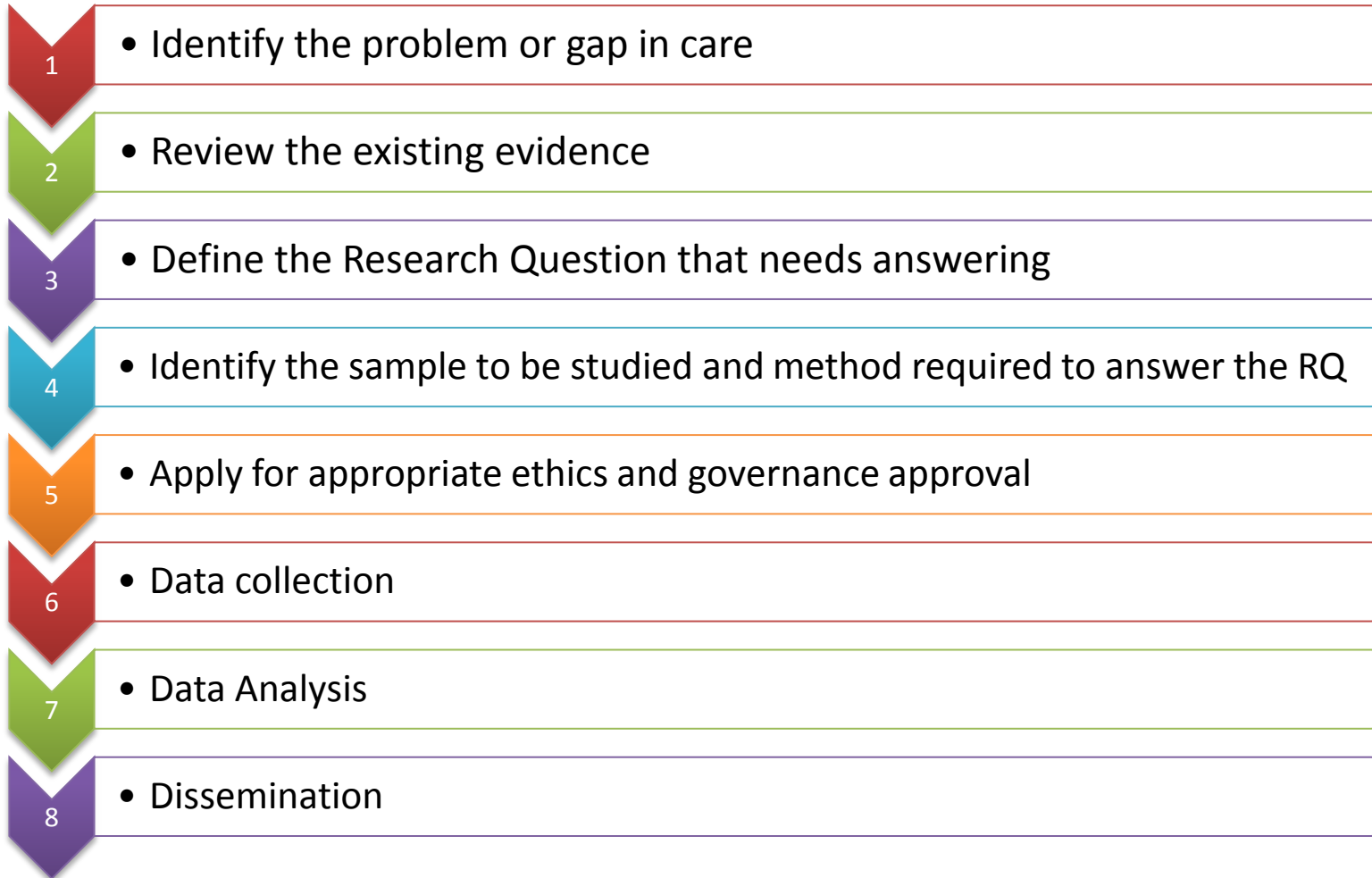
*"When everything seems to be going against you,
remember that the airplane
takes off against the wind,
not with it."*

~ Henry Ford

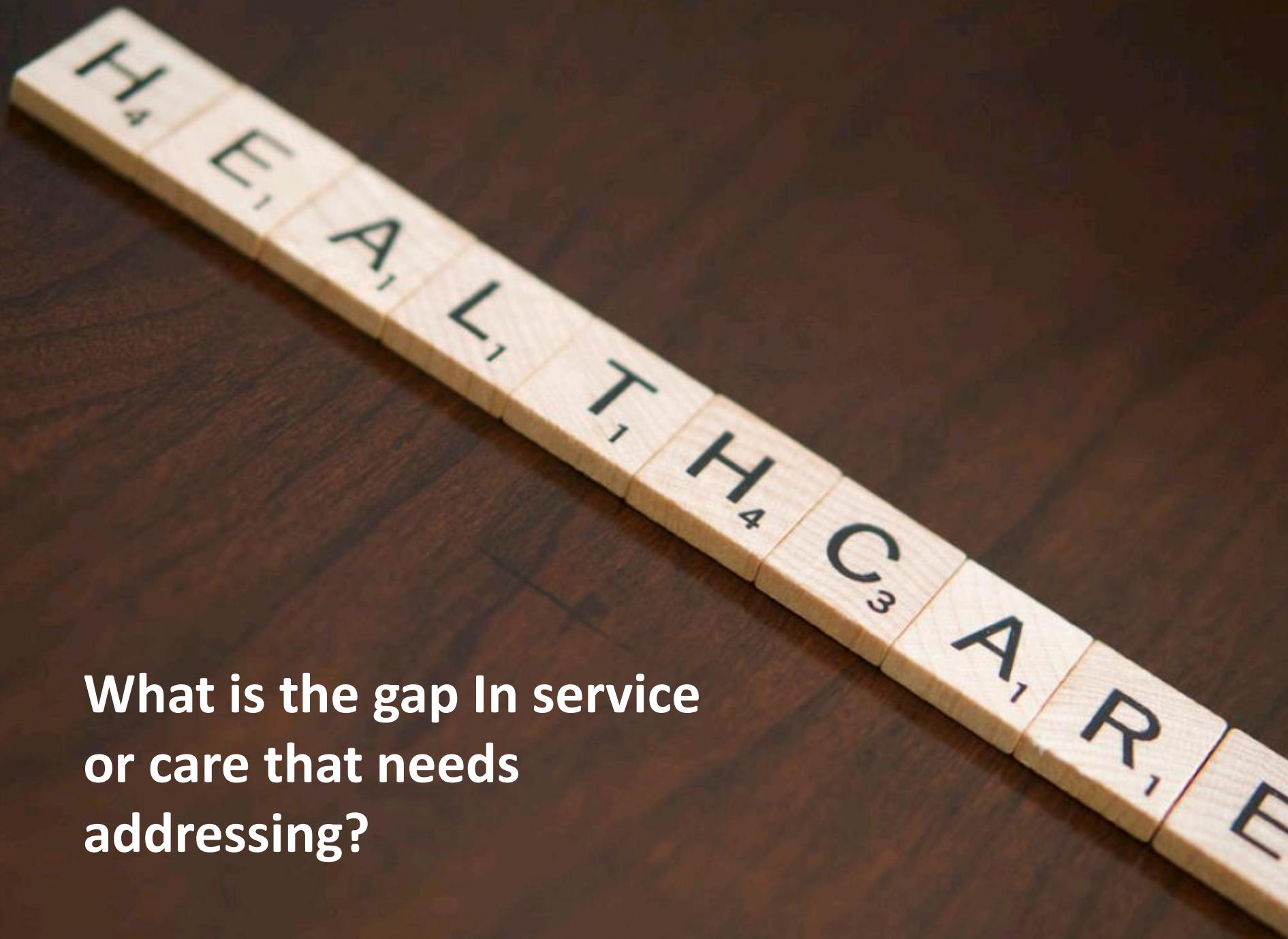


The research process

The Research Process



<https://www.thinglink.com/scene/822438759294304257>



What is the gap in service or care that needs addressing?



Choosing the methodology and method.



Stop
ignoring
research
ethics







An evaluation of the accuracy of semi-permanent skin marks for breast cancer irradiation

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KEYWORDS

Accuracy
 Breast radiotherapy
 Skin marks
 Technique

Abstract A randomised trial was designed to investigate the accuracy of semi-permanent ink marks versus permanent tattoos for early stage breast cancer irradiation. No significant difference in random and systematic errors was identified between the two groups. On multivariate analysis no specific patient characteristics had a major influence on the systematic errors identified. Published by Elsevier Ltd. All rights reserved.
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Contents lists available at ScienceDirect

Radiography

Journal homepage: www.elsevier.com/locate/yrao

Review article

A systematic review of methods to immobilise breast tissue during adjuvant breast irradiation

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ABSTRACT

Greater use of 3D conformal, intensity modulated radiotherapy (IMRT) and external beam partial breast irradiation following local excision (LE) for breast cancer has necessitated a review of the effectiveness of immobilisation methods to stabilise breast tissue.

To identify the suitability of currently available breast (rather than thorax) immobilisation techniques an appraisal of the literature was undertaken. The aim was to identify and evaluate the benefits of applied breast board techniques adopted in most radiotherapy departments. A database search and screening of the grey literature. A total of 27 articles that met the inclusion criteria, author searching and manual search of the grey literature. The aim was to identify and evaluate the benefits of applied breast board techniques adopted in most radiotherapy departments. A database search and screening of the grey literature. A total of 27 articles that met the inclusion criteria, author searching and manual search of the grey literature.

The review identified good reproducibility of the thorax using the standard supra- and infra-axillary technique. Reproducibility with the gross technique appears inferior to supra-axillary. Data from existing randomised controlled trials, assessing the effectiveness of additional breast support devices (such as rings or thermoplastic material) is hampered by small sample sizes and a lack of randomised data for comparison.

Abstracts to breast immobilisation techniques included in this review are available on the Elsevier website.

Available online 13 August 2009



Radiotherapy for breast carcinoma: an evaluation of the relationship between the central lung depth and respiratory symptoms

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The development of a low cost 3D surface imaging system to measure breast volume: Defining accuracy standards using an adapted Delphi consensus study

View this article online at www.sciencedirect.com

Health professionals require the ability to measure the volume of the breast precisely for breast cancer treatment planning. The use of 3D surface imaging systems for breast volume measurement has been proposed as a low cost alternative to MRI and CT. This study aimed to define accuracy standards for a low cost 3D surface imaging system to measure breast volume. A Delphi consensus study was conducted to define accuracy standards for a low cost 3D surface imaging system to measure breast volume. The study identified the key factors influencing accuracy and defined the accuracy standards for a low cost 3D surface imaging system to measure breast volume. The study identified the key factors influencing accuracy and defined the accuracy standards for a low cost 3D surface imaging system to measure breast volume.

Abstract: This study aimed to define accuracy standards for a low cost 3D surface imaging system to measure breast volume. A Delphi consensus study was conducted to define accuracy standards for a low cost 3D surface imaging system to measure breast volume. The study identified the key factors influencing accuracy and defined the accuracy standards for a low cost 3D surface imaging system to measure breast volume.

- 1. Introduction
- 2. Methods
- 3. Results
- 4. Discussion
- 5. Conclusion

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Overview

Moving to a High-tech Approach to the irradiation of Breast Cancer: Is it Possible to Balance Efficacy, Morbidity and Resource Use?

H. Probst, S. Griffiths

Faculty of Health and Wellbeing, Sheffield Hallam University, Sheffield, UK; Cambridge Hospital, UK

Abstract: There is considerable evidence demonstrating the potential morbidity associated with radiotherapy in early breast cancer. An appraisal of current standard radiotherapy practice in radiation oncology shows that women are receiving large volumes of radiation to the chest wall and axilla, and are experiencing subsequent side-effects, caused by progressive irradiation of the chest wall and axilla. The aim of this review is to evaluate the effectiveness of breast immobilisation techniques in reducing the volume of radiation to the chest wall and axilla. The review identified good reproducibility of the thorax using the standard supra- and infra-axillary technique. Reproducibility with the gross technique appears inferior to supra-axillary. Data from existing randomised controlled trials, assessing the effectiveness of additional breast support devices (such as rings or thermoplastic material) is hampered by small sample sizes and a lack of randomised data for comparison.

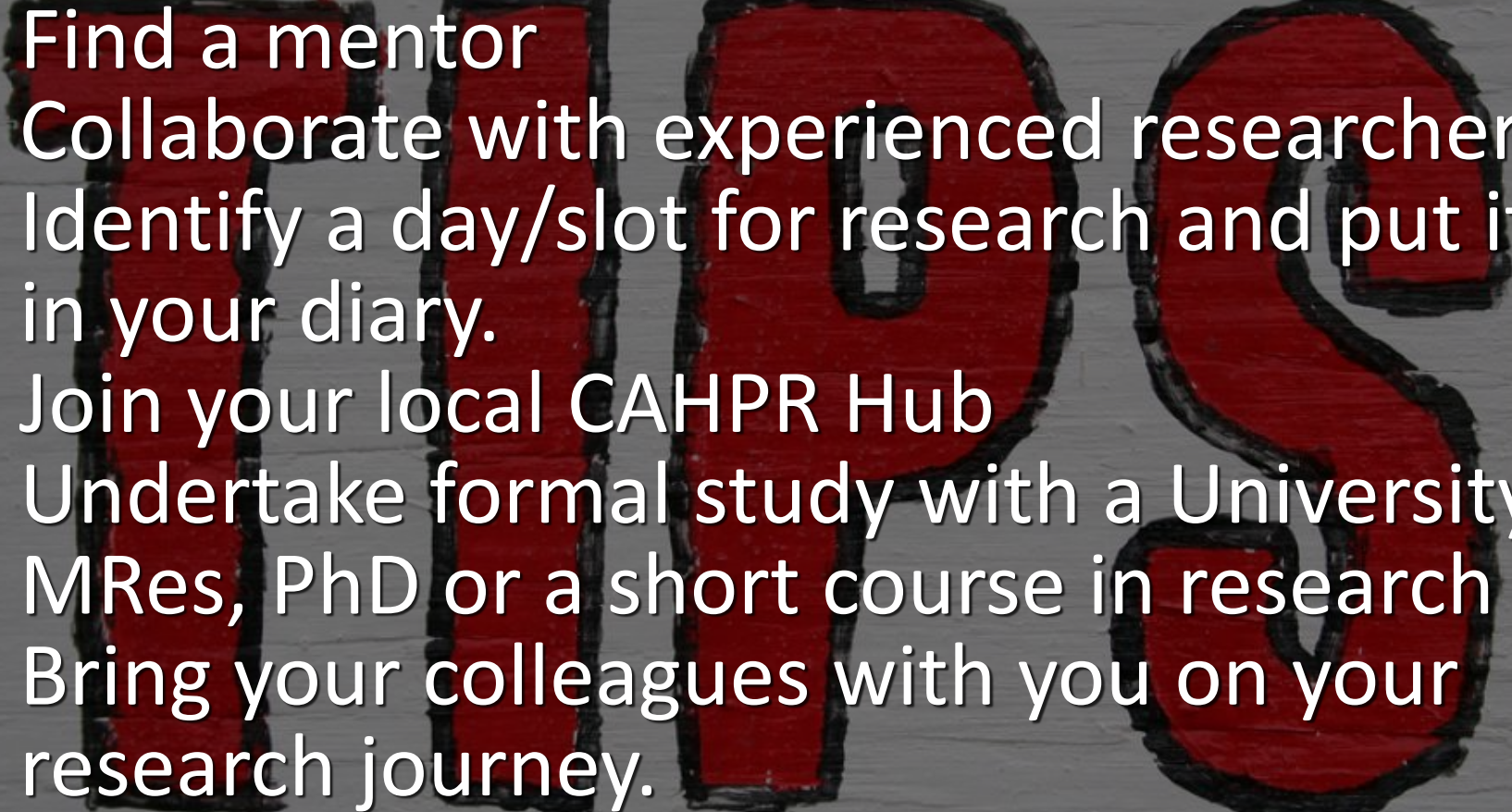


“If you are going to
achieve excellence in big things
you **develop the habit in little matters**”

Excellence is not an exception
it is a prevailing attitude.

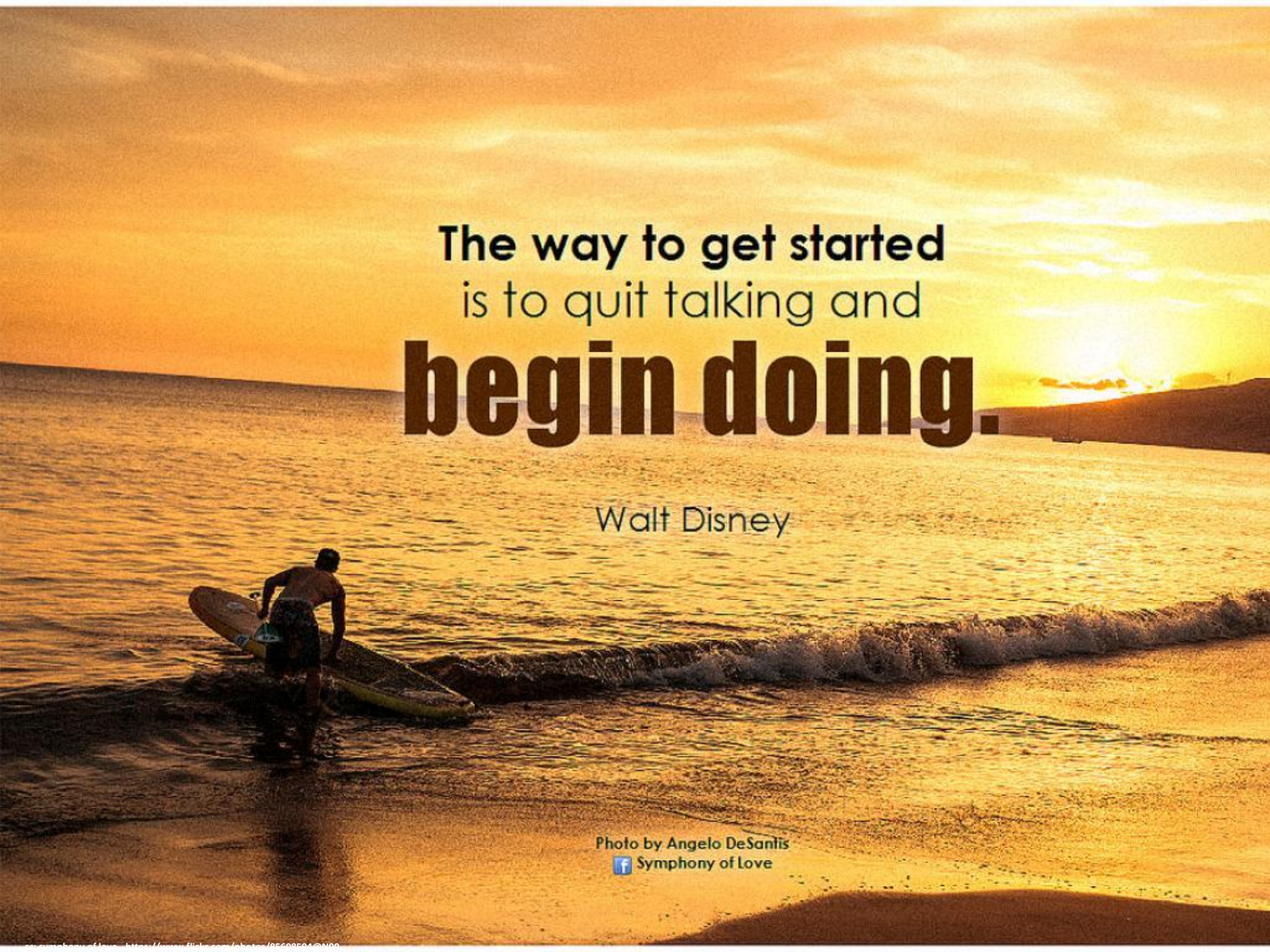
~ Colin Powell

Top Tips for Getting Started

- 
- Find a mentor
 - Collaborate with experienced researchers
 - Identify a day/slot for research and put it in your diary.
 - Join your local CAHPR Hub
 - Undertake formal study with a University MRes, PhD or a short course in research
 - Bring your colleagues with you on your research journey.


Top Tips for Getting Started

TIPS

A person is standing on a beach at sunset, holding a surfboard. The sky is a mix of orange and yellow, and the water is calm with a small wave breaking in the foreground. The overall mood is peaceful and inspiring.

The way to get started
is to quit talking and
begin doing.

Walt Disney

Photo by Angelo DeSanlis
 Symphony of Love

Time to act

The way to get started
is to quit talking and

1. Split into groups.
2. Each person to identify at least one strategy you can use to get started with research.
3. Each individual to list at least one area related to their practice that would benefit from further research.

Sexuality after Treatment for Early Prostate Cancer

Exploring the Meanings of “Erectile Dysfunction”

*Barbara G. Bokhour, PhD, Jack A. Clark, PhD, Thomas S. Inui, MD, ScM,
Rebecca A. Silliman, MD, PhD, James A. Talcott, MD, SM*

OBJECTIVE: To explore perceptions of the impact of erectile dysfunction on men who had undergone definitive treatment for early nonmetastatic prostate cancer.

DESIGN: Seven focus groups of men with early prostate cancer. The groups were semistructured to explore men's experiences and quality-of-life concerns associated with prostate cancer and its treatment.

SETTING: A staff model health maintenance organization, and a Veterans Affairs medical center.

PATIENTS: Forty-eight men who had been treated for early prostate cancer 12 to 24 months previously.

RESULTS: Men confirmed the substantial effect of sexual dysfunction on the quality of their lives. Four domains of quality of life related to men's sexuality were identified: 1) the qualities of sexual intimacy; 2) everyday interactions with women; 3) sexual imagining and fantasy life; and 4) men's

Quality-of-life considerations and patients' v have been gaining significance in determining ment choices and evaluating the outcomes of car early, nonmetastatic prostate cancer. Patients now themselves presented with several distinct primary apy options (e.g., radical prostatectomy, radical ex beam radiotherapy, brachytherapy, cryosurgery, hormonal ablation therapy). However, choices ma difficult. While most patients survive five years, c treatment carries significant uncertainty. Each option a patient might choose is associated with long-term effects, including urinary incontinence, bowel prob and sexual dysfunction, which, in turn, may cause fu psychosocial distress. Their physicians have an impo role to play as counselors, both to help them cho treatment and then, over the long term, as they live the outcomes



What did you think about the article?

A photograph of a swimmer in a pool, captured from an overhead perspective. The swimmer is in the middle of a stroke, with water splashing around them. Lane lines are visible in the pool. The overall tone is motivational and energetic.

SYMPHONY OF LOVE
Photo by David Mark

**YOU HAVE WHAT YOU
NEED TO SUCCEED.**

Don't let people and negative
thoughts keep you from
stepping in to your destiny.

Joel Osteen

Final thoughts?



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Research – whose job is that?

**“Research is everyone’s business.
It is important for everyone.”**