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# The challenges of initiating a multi-professional clinical skills project

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**Abstract**
Health care professionals are required to work collaboratively to prevent fragmented care and improve the quality of the patient's journey. The drive for multi-professional and inter-professional education is aimed at nurturing collaboration by engaging in joint educational initiatives. Although many United Kingdom (UK) policy documents endorse multi-professional and inter-professional initiatives, few seek to address the significant challenges inherent within these ventures. This paper uses force field analysis to make explicit the challenges experienced by two National Health Service (NHS) organizations on the east coast of Scotland during the initiation phase of a multi-professional clinical skills project. An action research methodology is employed to highlight the strategies adopted by the project team. The authors suggest that gaining insight into the cultural, logistical and educational challenges inherent in such initiatives provides valuable data to plan appropriate strategies to aid project success.

**Keywords:** *Multi-professional, project initiation, education, clinical skills*

## Introduction

Ensuring the patients' journey in health care is both safe and effective is complex, due to the number of stakeholders involved and resource constraints (Plsek & Greenhalgh, 2001). Health care professionals need to be explicit about potential threats or risks to this journey (Sexton et al., 2000) in order to protect patients, minimize error and prevent fragmentation of the care process (Department of Health, 2002). Risks to the patients' journey are also increasing as patients' expectations of health care practice rise and complex, high-risk, technical procedures are now perceived as routine (Hopkins at al., 1996). Despite standardization of procedures being a well recognized approach to minimizing errors in the aviation industry (Leape, 1994) there is no consistency in technique for even the most widely used procedural skills (e.g., venepuncture) in healthcare.

In UK healthcare multi-professional education and training is one approach that has been recognized to address these concerns. In "Working Together, Learning Together" (2001), the Department of Health identifies the need to develop a more flexible and adaptive workforce to meet the current demands for quality health care, and to flexibly prepare practitioners for health and social care needs. The UK National Health Service Plan (2000) recommends working in partnership with other organizations to achieve holistic outcomes for patients. The commitment to multi-professional learning through the strategic establishment of NHS Education for Scotland (NES) in 2001 recognizes the inevitable

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blurring of professional boundaries. This is necessary to meet the requirements of recent legislation resulting in the implementation of the EEC working time directive and the New Deal for junior doctors, particularly in relation to skills acquisition.

In response to these drivers, Tayside University Hospital Trust Endowment funded a Multi-Professional Clinical Skills Project. The project aims to create multi-professional clinical skills procedural teaching packs. These will be available in different media including paper and online formats. No ethical approval was required as the project was an educational development initiative. For the purpose of this project, a pack was defined as an open learning, self directed teaching resource used for in-house procedural skills training. The packs are aimed at all health care professionals, who require competence in specific procedural clinical skills. The project aims to create a minimum of eight paper versions and their online equivalents for the following procedural clinical skills:

(1) Professional Issues[1]
(2) Urinary Bladder Catheterization
(3) Venepuncture
(4) Arterial Puncture and Arterial Blood Gas Interpretation
(5) Peripheral Venous Cannulation
(6) Medicine Administration
(7) Safe Handling and Administration of Cytotoxic Intrathecal Drugs
(8) Intravenous Medicine

The first eight packs were aimed at post registration nurses, undergraduate doctors and relevant allied health care professionals. An open learning approach was adopted in order to accommodate clinically active practitioners with limited time to attend classroom based teaching sessions. It is envisaged that creating the packs in two versions will increase access to teaching material, as well as meeting the different learning styles of individual practitioners. The on-line versions will be developed as re-usable learning objects to enable transferability and integration into any standard compliant virtual learning environment, for example Blackboard and Wed CT.

This paper identifies the challenges faced during the initiation stage of a multi-professional clinical skills project within an NHS environment and shares the strategies adopted by the project team. The venepuncture author group have been used as the expert group.

## Methods

An action research approach was used to structure the enquiry as this methodology enables practical action to be combined with ongoing project management. Given the range of health care practitioners involved in providing procedural clinical skills a collaborative approach to action research (Reason & Bradbury, 2001) was appropriate. Valuing the experience and perspectives of others was critical to the project's success. Action research encouraged a systematic approach (Cohen et al., 2000) to measure the problems specifically related to the project. The following model was used to structure the process of action research (see Figure 1).

The action methodology followed was based on Lewin's (1951) action research model:

(1) Identifying general ideas
(2) Fact finding
(3) Action/change
(4) Evaluation

*Stage 1: Identifying general ideas*

Action research is often instigated by a concern or problem (NcNiff et al., 1996). In this particular project ''identifying general ideas'' involved the participation of three focus groups:

Focus group 1 – Leadership group (authors of this paper) – Project director, Project manager, Clinical skills tutor.
Focus group 2 – Expert group (authors of venepuncture skills pack)
Focus group 3 – Project steering group (see members in Figure 2).

*Focus group 1 – Leadership group*

This group was convened to identify the evidence base. Prior to the group session the participants conducted individual literature searches and brought this knowledge to the group. The group explored the information presented and this data was used to identify ideas.

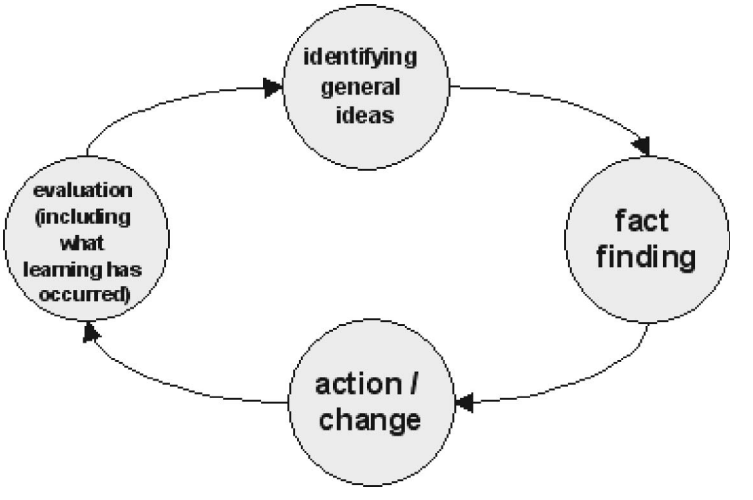


Figure 1. Action research model adapted from Lewin, 1951.

Members of the project steering group included representation from Tayside and Fife under the following:

Undergraduate medicine
Postgraduate medicine
Pre-registration nursing
Post-registration nursing
Primary care (nursing)
Acute care (nursing and medicine)

Figure 2. Members of the Project Steering Group.

The literature searches were conducted using Medline and Cinahl using the keywords of multi-professional and/or inter-professional education. It is already known that there are significant differences between multi-professional and inter-professional education (Barr, 1996). Both words were included in the literature search as the terms are sometimes used interchangeably in the literature. The search was conducted using Medline and Cinahl, limited to the last 6 years (1999 – 2005) and restricted to articles in English with available abstracts. The literature search found 154 (inter-professional) and 20 (multi-professional) articles. Selection was reduced by relevance of title and abstract.

*Focus group 2 – Expert group (authors of the venepuncture skills pack)*

Author groups representative of a variety of health care professionals were convened for each multi-professional clinical skills topic. Participants from expert groups were recruited by contacting previous authors of nursing skills packs, visiting specific departments and requesting the steering group to suggest potential authors. The venepuncture author group were selected as the expert group (focus group 2). This group was composed of doctors (general and paediatric), nurses (acute and primary care) and a phlebotomist from the acute hospital setting. At the first meeting the group were asked to identify their perceptions of the challenges, which included authors finding time to write whilst fulfilling clinical commitments. The group were then encouraged to identify specific challenges to the multi-professional clinical skills project.

*Focus group 3 – Project steering group*

A steering group was convened as a decision-making body to provide strategic direction to the project. Steering group members were also asked to participate in the study and focus group 3. At the first Project Steering Group meeting group members were ask to identify what they predicted the project challenges might be.

## Results

*Focus group 1*

Relevant articles highlighted general concerns or difficulties of multi-professional and inter-professional initiatives (see Figure 3). Focus Group 1 independently grouped these general concerns under the headings identified in Figure 4. The headings were identified by the leadership group from the literature.

*Focus group 2*

As well as identifying the challenges highlighted in the literature (Figure 3), focus group two also suggested that there was a perception that clinical skills training had less value than research activities. They also acknowledged that creating content within the packs which was relevant to all would be difficult.

*Focus group 3*

Again, focus group 3 identified similar challenges identified in the literature. The group also highlighted significant differences in Information Technology (IT) hardware between

**Results of the literature search:**

- confusing definitions
- curriculum disparities
- increased number of facilitators
- scepticism of multi-professional initiatives
- large student numbers
- fear of perceived loss of individual identity
- social imbalance of professional groups
- challenging facilitation
- perceived dilution of individual professions training
- varying processes of accreditation

Figure 3. Results of the literature search.

**Results of identifying general challenges**:

1. Defining terminology
2. Cultural
3. Logistical
4. Educational

Figure 4. Results of identifying challenges.



University and Hospital, with the subsequent issue of creating compliant online material. Focus group 3 also suggested that obtaining multi-professional authors and agreeing on a multi-professional assessment tool for skill acquisition would be particularly challenging.

*Stage 2: Fact finding*

Action research enables the idea or problem to be modified in light of further fact finding (Hart & Bond, 2000). The general challenges identified in stage 1 required further analysis to determine which challenges posed a significant threat specifically to the multi-professional clinical skills project. Force field analysis (Lewin, 1951) was utilized to determine specific challenges. Force field analysis is characterized by:

- a state of imbalance between driving forces and restraining forces
- the assumption that the imbalance can be influenced
- recognizing that driving and restraining forces are dynamic processes

The process involves identifying the driving and restraining forces. Identifying the driving forces assists to reinforce the positive aspects of the project. The analysis determines which driving forces can be strengthened or added too, and whether restraining forces

can be reduced or removed to maximize change or success. Reinforcing positive forces and condensing or removing restraining ones increases the likelihood of successful change.

The individuals of the leadership group independently reviewed and grouped the challenges identified in stage 1 into the themes identified in Figure 4, before repeating this activity as a group and reaching consensus. The leadership group then identified the restraining and reinforcing factors using the process of force field analysis (Figure 5).

*Stage 3: Action/change*

The action component is when the selected intervention is implemented in order to bring about change (Hart & Bond, 2000). The restraining forces were analysed to determine if their impact could be reduced, or even removed. Restraining forces were analysed using risk analysis (PRINCE 2, 2004) where probability and impact of forces are determined and responses are categorized into the following:

- Prevention – remove the risk or put in countermeasures to stop the threat from occurring,



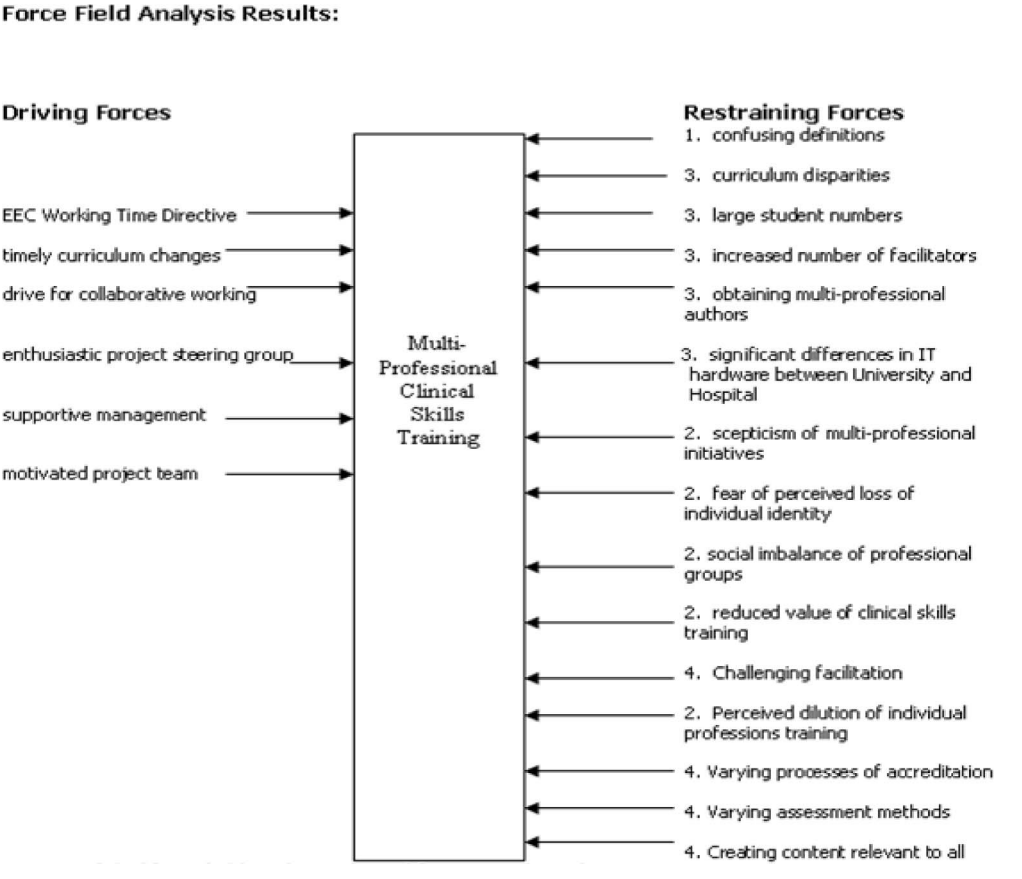


Figure 5. Force field analysis results (adapted from Lewin, 1951).

- Reduction – take action to reduce the likelihood of the risk developing or to limit the impact on the project to acceptable levels,
- Transference – management of the risk is passed to a third person, for example an insurance policy or penalty clause,
- Acceptance – tolerate the risk as there is nothing that can be reasonably done to mitigate it or the impact of the risk occurring is acceptable,
- Contingency – planned actions that should come into force when the risk occurs.

The project manager determined the strategies to be employed using a risk analysis framework (PRINCE 2, 2004). These were then circulated for review and modification to the project steering group. The strategies employed are now discussed in detail.



## Discussion

*The challenge of defining multi-professional or inter-professional initiatives*

There is a need to acknowledge the fundamental differences between inter-professional and multi-professional education, as they pose different challenges. CAIPE (Centre for the Advancement of Inter-Professional Education, 1997) defines multi-professional education as ''occasions when two or more professions learn side by side for whatever reason'', whereas inter-professional education is defined as ''occasions when two or more professionals learn from and about each other to improve collaboration and the quality of care''. Clarifying the terminology for this project was essential. The clinical skills project aims to produce flexible, clinical skills learning packages, suitable for a range of health care professionals. The theoretical content of the packages is accessed through distance learning material and simulated practical sessions provided for all, regardless of professional background. The project is therefore multi-professional in nature, although it could be argued that during simulated practice sessions, practitioners may also learn about and from each other.

To ensure clarity and understanding of the multi-professional nature of the project, steering committee members were given a project brief detailing the background, drivers and planned approach. Author groups were established, composing of experts from various disciplines, for each clinical skills pack. Author groups were given a verbal presentation about the projects multi-professional nature at first meetings. Given that this opposing force appeared largely due to confusion over terminology, clarification may well have reduced (reduction – PRINCE 2, 2004) or even removed this threat (prevention – PRINCE 2, 2004).

*Cultural challenges*

Although invisible influences such as cultural factors cannot be planned or measured with project software, they nevertheless are an essential consideration for multi-professional projects. Given that there is minimal research demonstrating the clear benefits of multi-professional education (Tucker et al., 2003), practitioners may remain sceptical of the value of a multi-professional approach to clinical skills education. A definitive project brief, comprehensive project plan and potential solutions to manage risks can assist to reduce scepticism of the initiative (acceptance and reduction – PRINCE 2, 2004).

There are social imbalances between professional groups steeped in historical and traditional roles (Blane, 1991; Hugman, 1991; Carrier & Kendall, 1995; Caldwell, 2003), such as the caring role being assumed by women, nursing being dominated by the powerful medical profession and doctors held in higher regard and respect from the general public. Collaboration

is therefore essential in multi-professional initiatives. The steering group were given ''roles and responsibilities'' which they accepted to ensure appreciation of their role and commitment to the project. The steering group as the decision-making body had to be effective yet representative (Prince 2, 2004). Each member was requested to compose project objectives from the area they were representing. During a steering group meeting consensus was obtained on which objectives to share and take forward. This process enabled ownership of the project's direction and equal representation from stakeholders. It also provided documentation of agreed objectives and enabled effective planning for the next stage of the project.

Acknowledging different local approaches to clinical skills training was important. Nursing staff, within NHS Tayside, have been using flexible, clinical skills packages for approximately 10 years therefore this familiarity reduced the impact of change for nursing staff. Anecdotal evidence suggests that until recently however, many clinical skills were taught on a ''see one, do one'' basis in undergraduate medicine. Compliance with the Scottish Doctor (2002) requires undergraduate medicine to take on a more systematic approach to clinical skills training. The project director has responsibility for clinical skills in the undergraduate curriculum, which will increase the likelihood of incorporating a multi-professional skills approach. Here the social imbalance is accepted and used as a driving force to achieve the project objectives (acceptance – PRINCE 2, 2004).

Practitioners can feel their individual clinical skills training is being diluted by multi-professional initiatives. New multi-professional skills packs should aim to complement existing programmes, not dilute them. An expert group, composed of various healthcare professionals, determine objectives and content collectively to demonstrate consensus to ensure best practice is adopted from all healthcare groups. In order to give professional groups ownership, there needs to be recognition of prior work. The multi-professional clinical skills packs build on existing nursing packs and recognize this in terms of pack authorship and contributions. The perception that training is being diluted has been managed by ensuring ownership from all relevant disciplines.

There is some anecdotal evidence that clinical skills have been valued less than other more ''academic'' subjects, demonstrated by less curriculum time being allocated to clinical skills. However, the drive in policy documents to provide evidence of clinical competence, combined with the review of the nursing and medicine curriculum has seen an increased importance of the value of clinical skills training. Here the risk is being managed by a third party, manifested by the expectations and recommendations enshrined in policy documents (transference – PRINCE 2, 2004).

Glen and Reeves (2004) remind us that ''course organisers need to be mindful of the potential impact of early professional socialisation processes''. Negative stereotypical views of differing health care professionals are often established early in education and training (Freeth & Reeves, 2004). This evidence is in direct relation to inter-professional education however, where professionals are learning from and about each other as well as the same subject matter. The multi-professional clinical skills project aims to provide standardized clinical skills training, irrespective of an individual's professional healthcare background. Fear of perceived loss of identity can be reduced by ensuring that individual professions have their own clinical skills training where appropriate – not all training will be suitable for a multi-professional audience.

### *Logistical challenges*

To gain credibility and acceptability across the various disciplines, the content of clinical skills packs are written by medical, nursing and allied health care contributors from a variety

of primary and acute care settings. This has posed many challenges ranging from identification of suitable authors, arranging meeting times subject to multiple authors' availability and balancing facilitation with direction. The role of the project secretary has proved invaluable for organizing suitable meeting times with multiple author groups, which is a time consuming task. Contributors identify content headings at the first meeting and tasks are allocated to individuals. This work is received via email and a first draft of the pack is compiled for the second meeting. The project manager carries out relevant literature searches and forwards relevant information to individual authors to assist and encourage the authors to complete their piece of work. A variety of strategies are used to obtain multi-professional contributors including dissemination and presentation to various education forums, informing practitioners of the benefits of authorship and emphasizing that they will be supported throughout the process. Authors are often not able to complete work within agreed time frames and this has to be built into the project plan. When authors are unable to complete work within a reasonable timeframe then an alternative member of the group is assigned to complete their work. When this occurs the original practitioner often takes on the role as reviewer (reduction – PRINCE 2, 2004).

Other logistical challenges occur in the application and use of the packs, e.g., classroom size, number of students, curriculum timing and the ratio of students to facilitators. If students are to gain supervised practice in a simulated environment, and learn from and about other professional groups, there needs to be a high facilitator to student ratio (Barr, 1996). Again, these logistical issues can be addressed as the project progresses, but should not hinder project initiation. Initially there will need to be a degree of flexibility and a trial and error approach to manage the logistical challenges. Contingency (PRINCE 2, 2004) planning should be instigated when initially rolling out the programme.

To provide flexible and innovative teaching material, the project aims to create clinical skills packs as re-usable learning objects, housed in a virtual learning environment (VLE), as well as in paper-based format. However, there needs to be substantial marrying of IT hardware to enable NHS and university staff to be granted equal access to a VLE system. A record of practitioners accessing and completing clinical skills packs need to be kept; this results in significant adaptation of existing databases to enable collection of multi-professional information. Significant collaboration between the university and hospital IT departments is therefore essential to project success. This risk is managed by contingency planning – if there is not substantial marrying of IT hardware between the NHS and the University an alternative is to create different modes of accessing the re-usable learning objects.

### *Educational challenges*

Facilitation of multi-professional groups may be challenging and additional training may be required to prepare practitioners for this role, such as the national workshops run by CAIPE and local provision, such as the postgraduate module in ''Teaching Clinical Skills''. Holland (2002) recognizes the needs of facilitators to have an understanding of individual professional issues, as well as relevant knowledge and skills. The Clinical Skills Centre in Dundee is currently piloting an inter-professional clinical skills trainer course. Developing an understanding between professional groups should prepare facilitators for their role.

The process of establishing the academic level of theoretical content of clinical skills packs is complex if they are to be used at undergraduate and postgraduate level. Involving key stakeholders to determine the academic level and outcomes, and mapping these against the Scottish Credit and Qualifications Framework (2003) has assisted this process.

Multi-professional assessment of clinical skills performance remains one of our most challenging tasks. Many health care practitioners are familiar with the Objective Structured Clinical Examination (OSCE) often used in a simulated environment. Although suitable for a training environment there are significant difficulties when using OSCE's in clinical practice. The SCOTS Project (Malek, 2002) produced skills checklists to assess practitioners in clinical areas. However, reliability remains debatable in clinical practice as these checklists do not take account of the complexity of the case or the context in which they will be practised. An assessment tool needs to incorporate assessment of professionalism, an ability to assess the patient, communication skills, organizational skills, as well as the technical ability of skill acquisition. Other assessment tools are already in use, such as the Longitudinal Evaluation of Performance (Prescott et al., 2002) utilized throughout dentistry and the Directly Observed Performance (Wilkinson et al., 2003) produced by the Royal College of Physicians. However, each would require adaptation for multi-professional use and subsequent trials to determine validity and reliability. The project has now created, through consensus, a clinical skills assessment tool which is currently being studied to determine its validity and reliability. Implementing a multi-professional assessment tool would prevent multiple and unequal assessments between professional groups (prevention – PRINCE 2, 2004).

Validation and accreditation of clinical skills packs also poses structural challenges multi-professionally, due to the different requirements of professional bodies. However, the establishment of NHS Education for Scotland (NES) and their framework for clinical skills may provide the transparency required. The project steering group are working closely with other universities and professional groups towards accreditation that is recognizable to all professional groups. It is accepted that accreditation may not be achieved in the short-term which meets all users' requirements (acceptance – PRINCE 2, 2004).

*Stage 4: Evaluation (including what learning has occurred)*

Ensuring the challenges faced by the project are made explicit is the first step to enabling appropriate management. Clarification of the cultural, logistical and educational challenges encourages analysis of the restraining and driving forces and assists in the consideration of the likely impact on the overall project. Involving the project steering group and author groups in untangling the complexity of the issues will assist in increasing stakeholders' awareness of the project challenges, and encourage ownership of the project products, i.e., clinical skills packs.

Identifying the challenges to the multi-professional clinical skills project and taking appropriate action to reduce the risk should increase the likelihood of project success. Although evaluation is recognised as integral to the change process in action research (Hart & Bond, 2000), it is not feasible to make a full evaluation as the project is only 9 months old. Given that the first phase of projects is critical to success however, and the project is currently delivering on time, within budget and with clear objectives, there is an increased probability the project will meet its objectives. The project manager believes this is due to successful collaboration, effective time management and supporting practitioners who are willing to contribute to the project.

A funding application has been submitted to appoint a research assistant to carry out an external evaluation of the project at the two year end point. If successfully funded, this evaluation will ensure an unbiased judgement of whether or not the project has achieved the set objectives, measure what professions are accessing the packages and determine whether or not the packs have standardized procedural clinical skills in practice – through a real time observational study, using agreed procedural checklists.

## Conclusions

There are significant drivers to support multi-professional education (Department of Health 2000a, 2000b, 2001, 2002), necessitating changes in working practices and modernisation of service provision to support the need for multi-skilled practitioners. To enable multi-professional educational initiatives to succeed, there must be strategic and operational support, effective management, collaboration with key stakeholders and adequate resources. These should be responsive to the needs of both the organization and individual, yet dynamic and flexible enough to adapt to the ongoing challenges and changes which are inevitable in the delivery of health care education.

Lewin's (1951) action research model was a useful tool, providing a systematic framework to increase awareness of the challenges posed by the multi-professional clinical skills project. The key advantages of the model were the essential ability to continue on-going project work, whilst progressing with the enquiry, as well as encouraging a collaborative approach.

The authors found the diagrammatic representation, using force field analysis, provided visual clarity of the challenges faced by the project. This openness promoted a critical awareness of the challenges faced and helped to identify strategies to address them at the project outset.

Documenting risks and lessons learnt throughout this project will help to inform future initiatives. There is a requirement for further research evaluating the outcomes of the project to determine success and future feasibility. The multi-professional clinical skills project envisages that the establishment of multi-professional clinical skills training can encourage good working practices, reduce clinical risk, standardize clinical skills practice, ease transferability of clinical skills, encourage collaborative working practices, ultimately improving the quality of the patient's journey. The challenges of multi-professional education and training are complex and multi-faceted; however the overall aim should improve patient care.



## Note

1. Professional Issues is a core pack designed to address the ethical and legal issues inherent in clinical skills practice and delivery, therefore negating repetition in subsequent packs.

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